

Think safety think Steelmate

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STEELMATE
Automotive

PTS400W1-COM

Wireless parking assist system
for commercial vehicle



Manual

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User Manual

Important notice

Parking Assist System (PAS) helps to provide assistance when reversing and parking. Driving skill such as slowing down, use of mirrors etc. is always essential.

1. This system is for vehicles with 12~24V DC.
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 the actual drilling of the holes.
5. Perform a functional test after installation.

Disclaimer

The PAS 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.

About the product

This PAS comes with 4-sensor and a buzzer that is an ultrasonic detects the area behind the vehicle while reversing, and alerts with audible tones, if the system detects an obstacle.

PTS400W1-COM is a 4-sensor rear wireless parking assist system, from control unit to buzzer is wireless.

The buzzer available is suitable for dashboard /windshield.

Every part of the product has passed the most stringent test before releasing to the market.

Specifications

ECU

- Operating voltage: DC 9V ~ 32V
- Operating current: < 150mA
- Operating temperature: -40 ~ + 80°C
- Storage temperature: -40 ~ +85°C

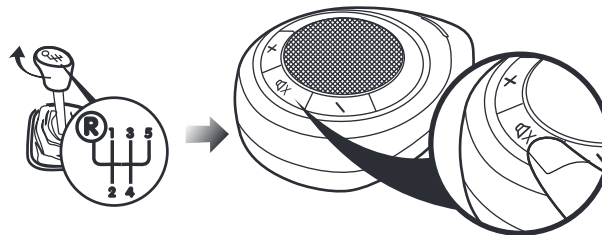
Sensor

- Operating frequency: 40 ±2KHz
- Operating temperature: -40 ~ + 80°C
- Storage temperature: -40 ~ +85°C

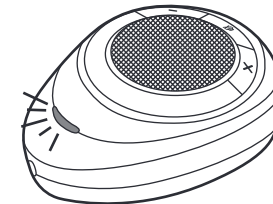
Buzzer

- Operating voltage: DC 9V ~ 32V
- Operating temperature: -40 ~ + 80°C
- Storage temperature: -40 ~ +85°C
- Operating current: < 300mA
- Siren SPL: 70~90dB

Voice adjustment



When reverse gear is selected, press "ON" button for 2 seconds to turn on/off the voice alarm



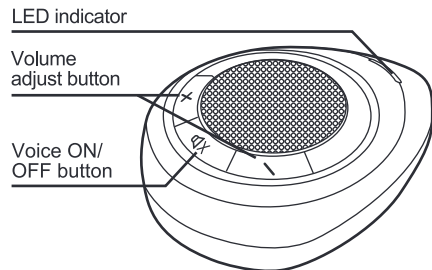
Red LED light flashes 3 times:
Voice alarm turn off

Blue LED light flashes 3 times:
Voice alarm turn on

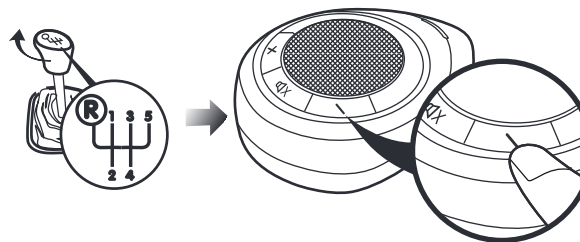
Key features

- Volume adjustable
- Water resistant ECU
- Human voice speaker
- All weather design
- Self-test function
- Truck sensor for commercial vehicles
- Detachable sensor with waterproof wire connector

Brief look of buzzer



Volume adjustment



There are 3 levels volume can be chose, high volume, medium volume and low volume.

When reverse gear is selected, press "+/-" button to adjust the volume.

When the obstacle distance is less than 0.3m/1.0ft, the audible warning will alarm in high volume automatically.

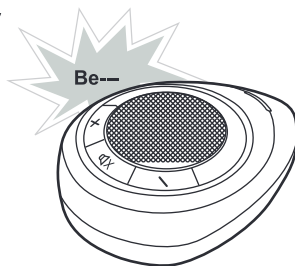
Self-test function

When reverse gear is selected, the system will test all rear sensors automatically.

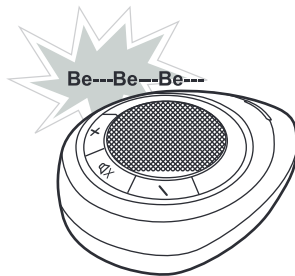
If all sensors are working properly, the blue LED light flashes once and the buzzer will beep once for indication.

If a damaged or defective sensor is detected, the red LED light flashes 3 times and the system will beep 3 times for alarm.

1. All sensors are working normally



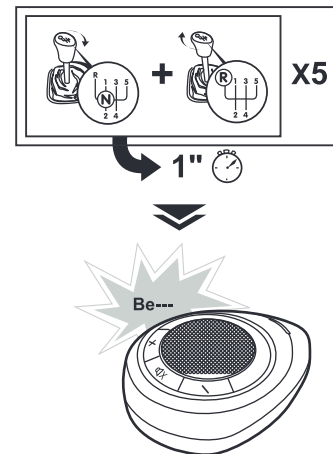
2. Damaged or defective sensor is detected.



Notes:

- Beep 3 times for alarm
- Other proper sensors will keep working after the alarm
- The system will not alarm when sensors (B&C) are damaged/ defectives it will work as 2-sensor system automatically.

Learning function for cars with tow-bars or spare wheels



The system may have a false alarm due to vehicle with tow-bar/ spare wheel/ other stuff nearby rear sensors when it is located without obstacle and reserve "R" gear selected. When learning function is ON, the system will ignore the tow-bar/ spare wheel/ other stuff nearby rear sensors in detection.

Steps:

1. With the ignition ON, change the gear from "N" to "R" for 5 times (Each gear change must be within 1 second).
2. After 5th times, leave the gear in "R" position.
3. After 8 seconds the buzzer will beep twice to complete the learning process.

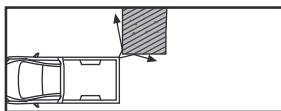
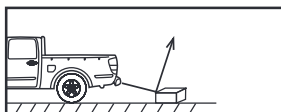
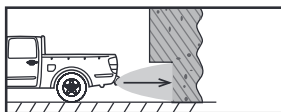
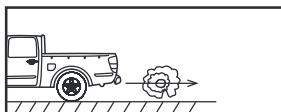
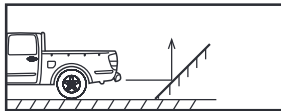
Cleaning the learning function:

1. With the ignition ON, change the gear from "N" to "R" for 8 times (Each gear change must be within 2 second).
2. After 8th times, leave the gear in "R" position
3. After 8 seconds, the buzzer will beep once to indicate that the learning function is cleared successfully and the system is reset.

Tips: If miscarrying in the above learning procedures, leave vehicle in "R" position for 2 seconds to clear the system memory and the start the above learning procedure again.

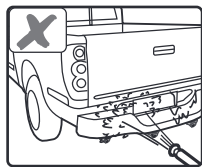
Attention

False detection may occur in the following situations:

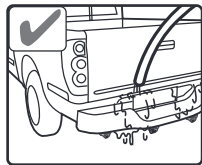


- After installation, please fully test the system before use.
- Heavy rain, dirt or damaged sensors may cause false warning occasionally.
- Ensure that the self-test procedure is completed and all sensors are functioning before reversing the system.

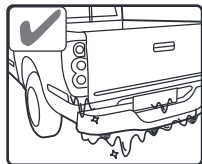
Self-test function



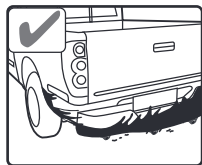
Do not wash the sensor with squirt gun or swab them forcibly.



Please wash car with low-pressure water.



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

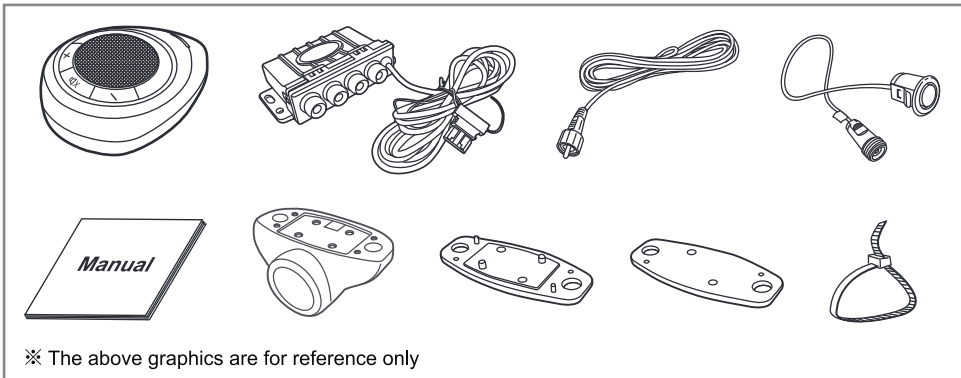


Please clean the sensors with cloth or low-pressure water when the sensors are covered by mud or snow.

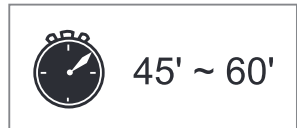
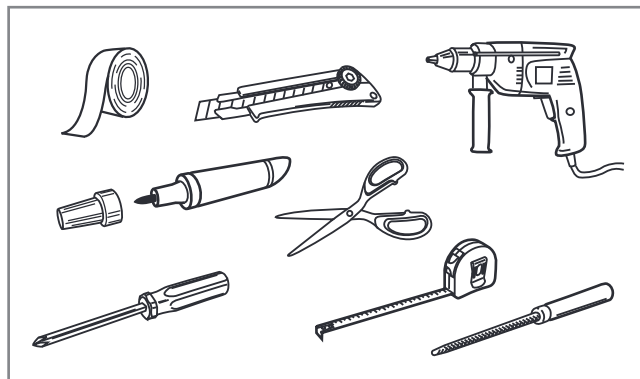
Different scenarios for system with buzzer

Buzzer	Voice	
Be-----	STOP 0.3 Meter	STOP 1.0 feet
Be--Be--	0.4 Meter	0.5 Meter
Be--Be--Be--	0.6 Meter	2.0 feet
Be----Be----	0.8 Meter	3.3 feet
No Beep	1.0 Meter	3.3 feet
	1.2 Meter	4.0 feet
	1.5 Meter	5.0 feet
		6.0 feet
	2.0 Meter	7.0 feet

Includes

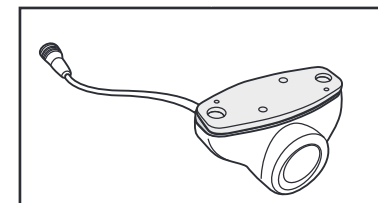
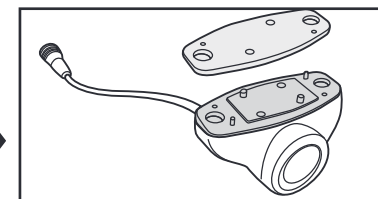
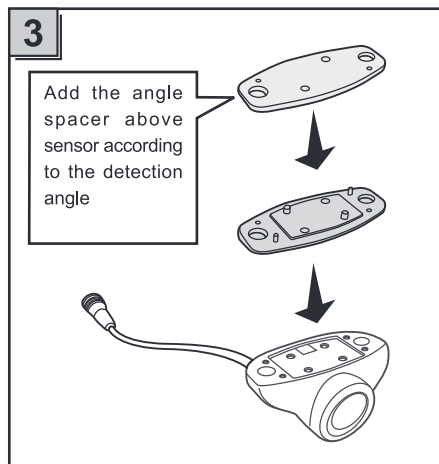
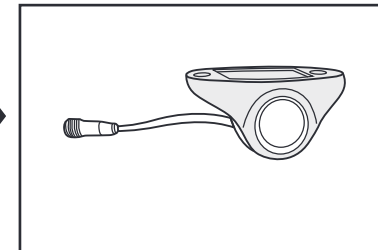
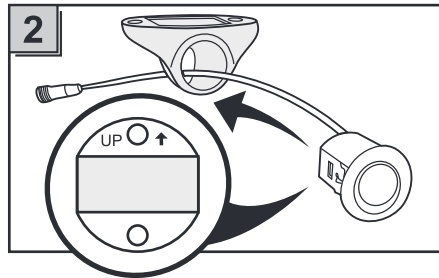
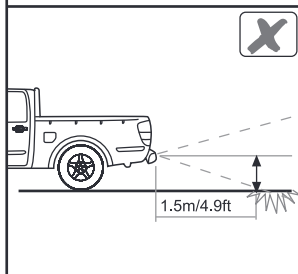
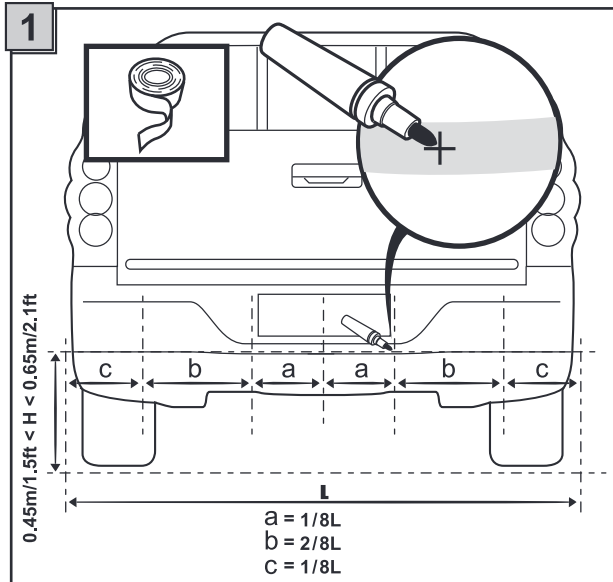
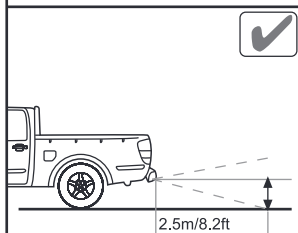
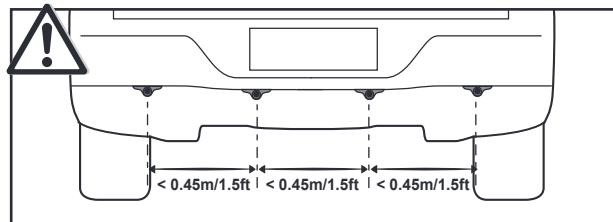
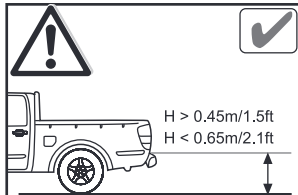


Installation tools

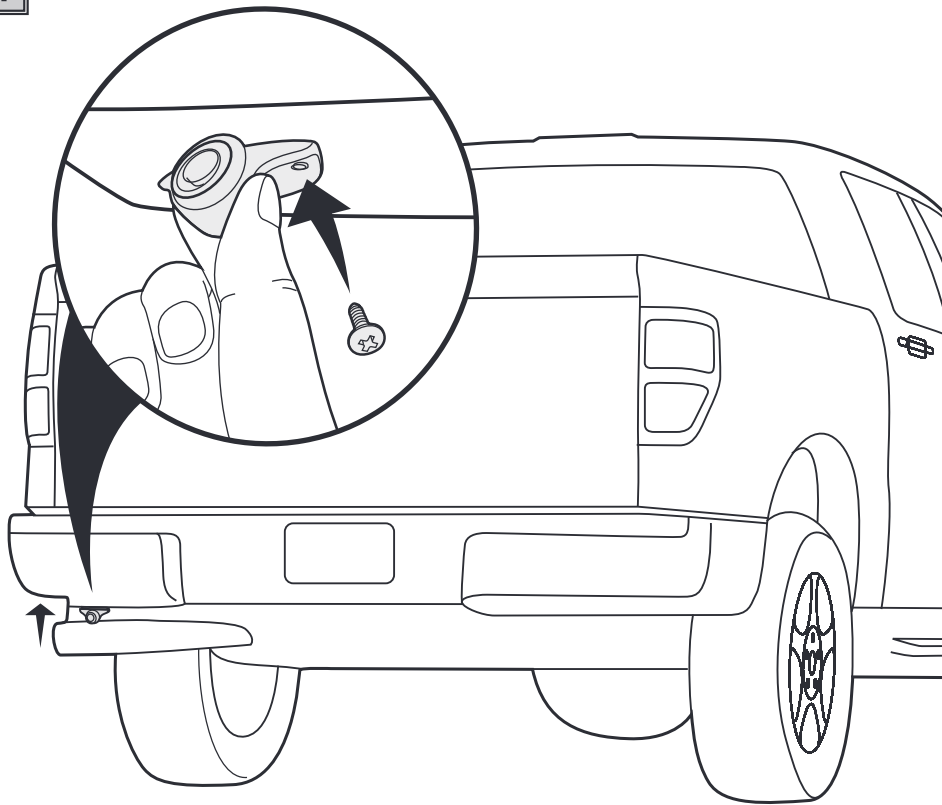


Sensor installation

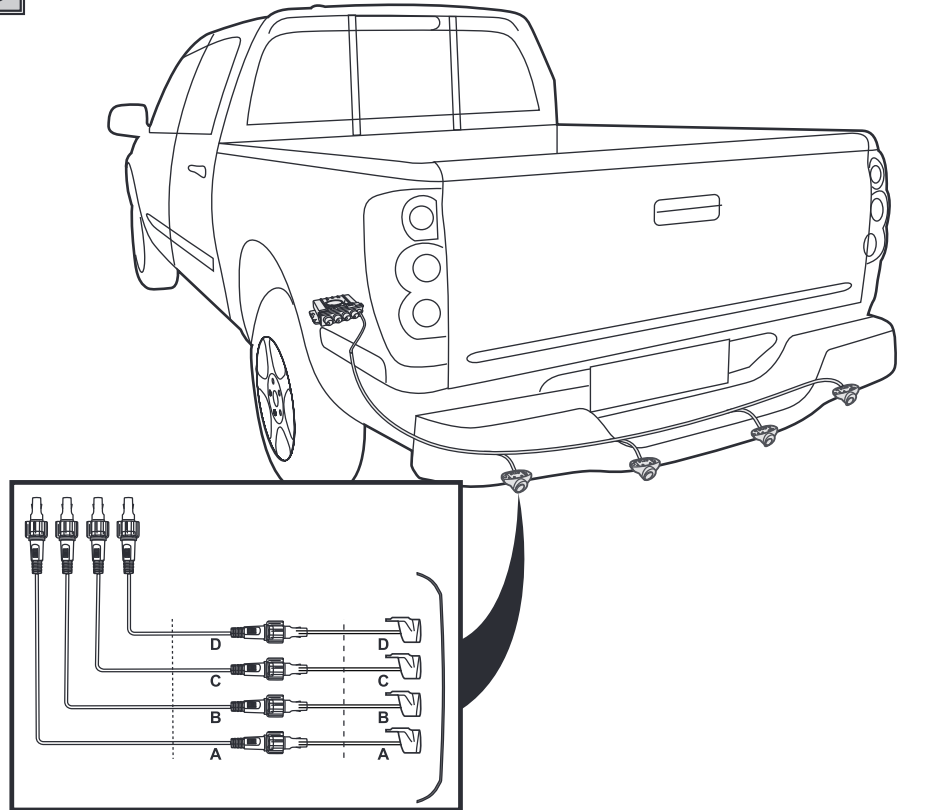
Pls adjust the sensor angle according to sensor height and bumper angle, avoid detecting to ground.



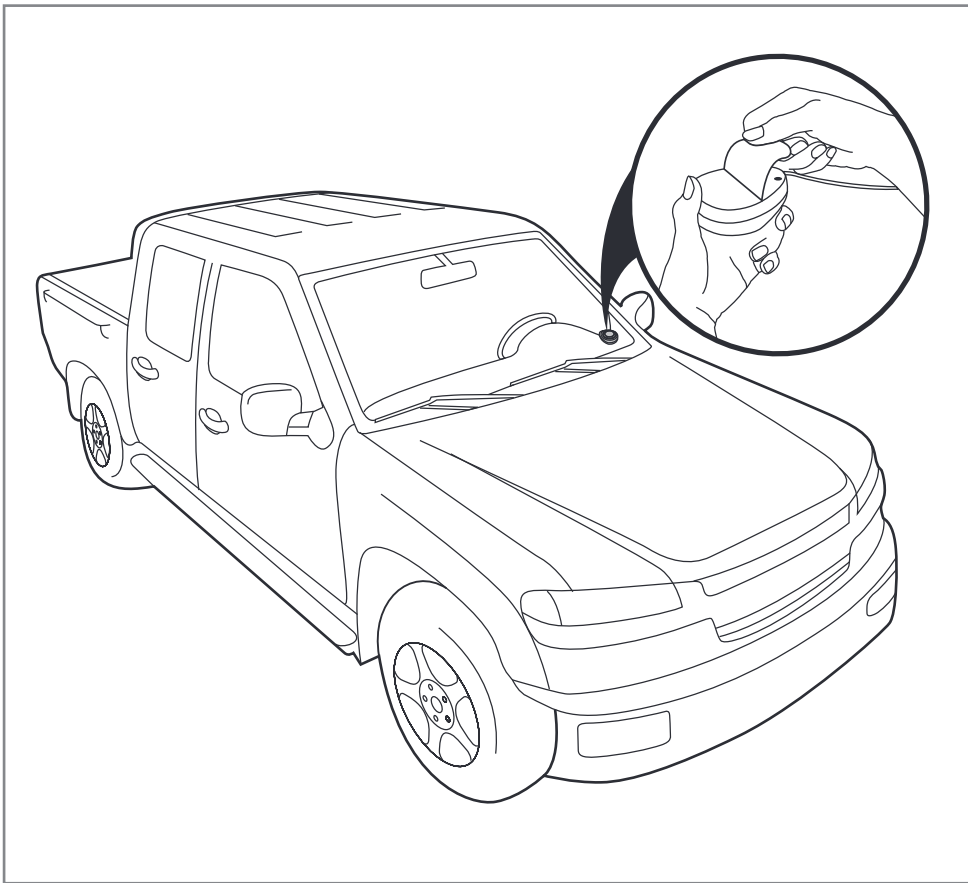
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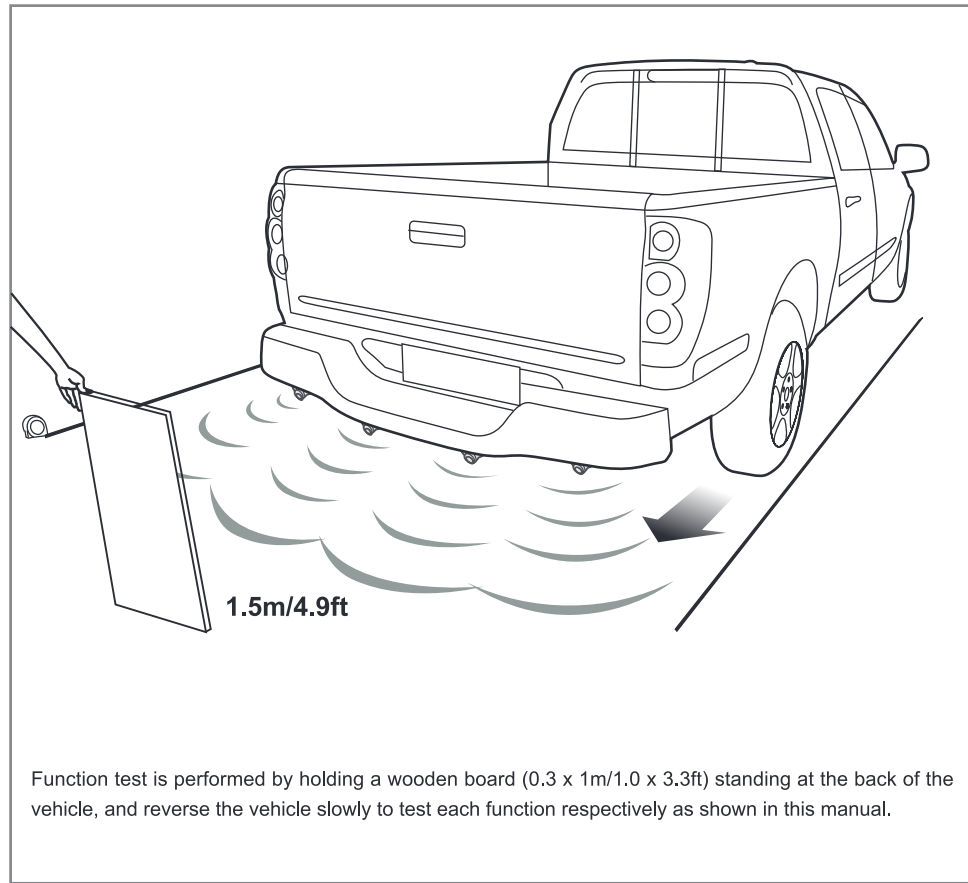
5



Buzzer installation

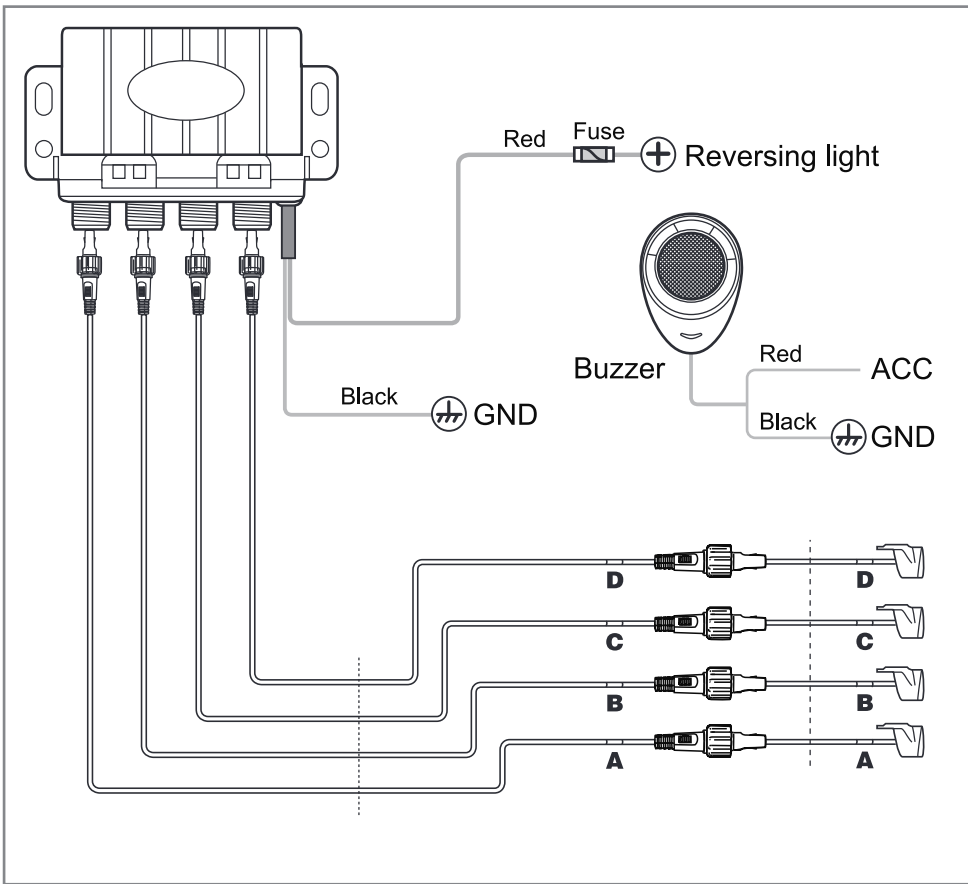


Function test after installation



Function test is performed by holding a wooden board (0.3 x 1m/1.0 x 3.3ft) standing at the back of the vehicle, and reverse the vehicle slowly to test each function respectively as shown in this manual.

Wiring diagram



Troubleshooting

1. After installation, the buzzer/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 lighted 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 of 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

- Press the volume 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 performing a functional test again
- Please email us at sales@steel-mate.com about the problems with details.