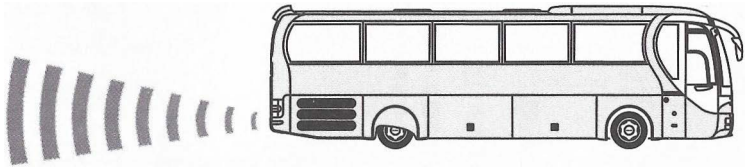
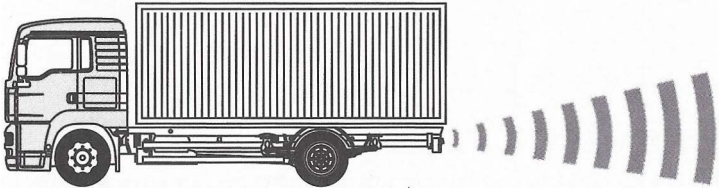


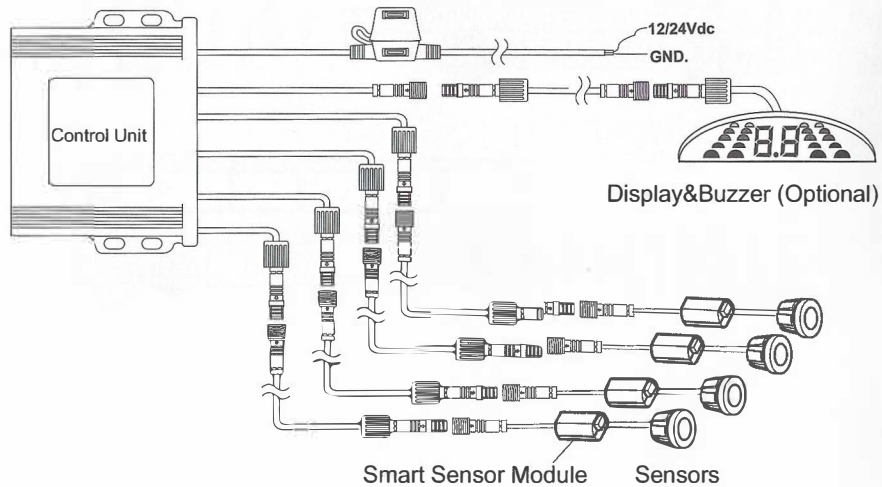
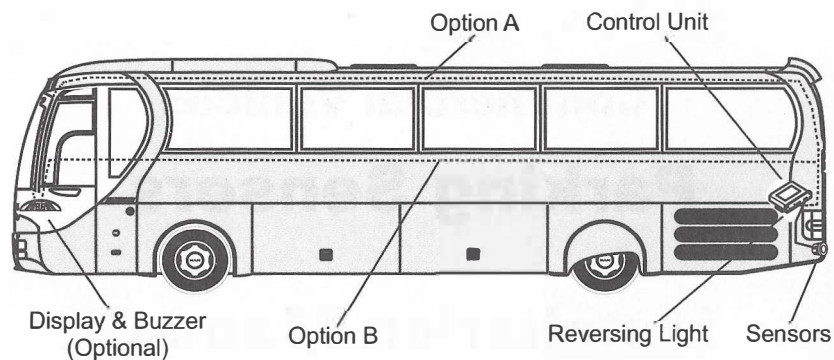
PS-SDW

Parking Sensors

Installation Manual

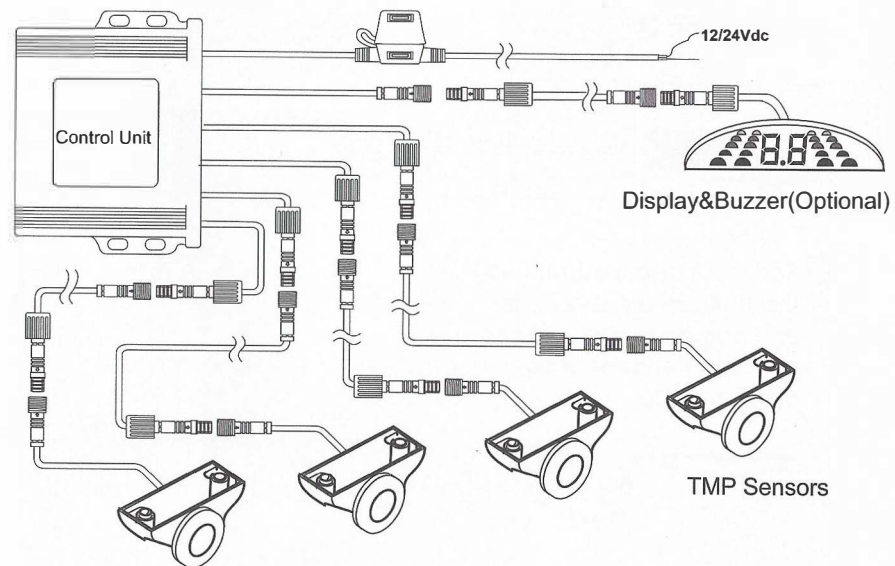
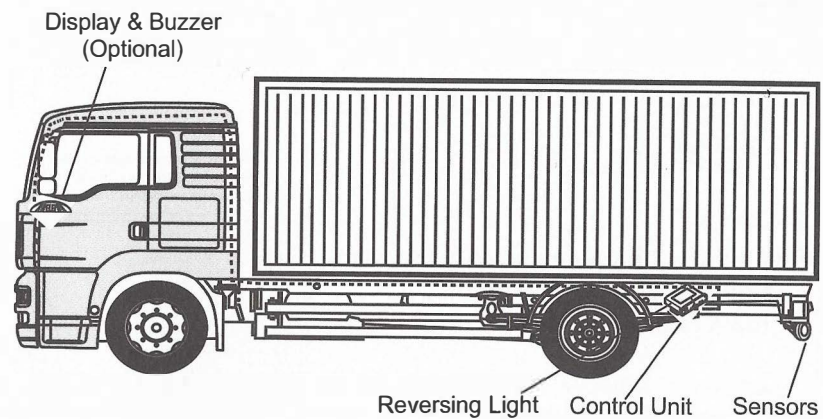


WIRING DIAGRAM



(1)

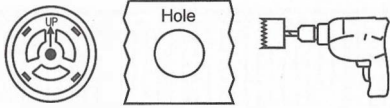
WIRING DIAGRAM



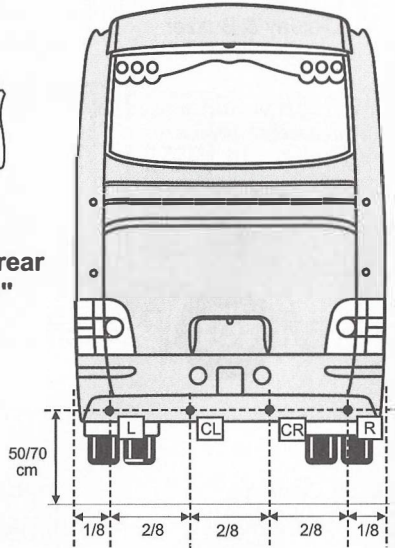
(2)

SENSOR INSTALLATION

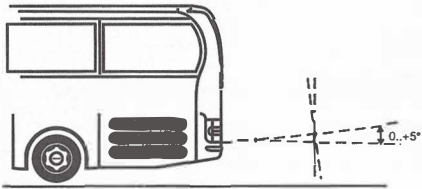
1 Positioning



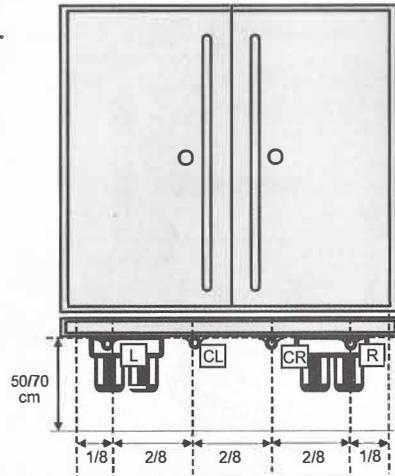
2 Fit the rubber sensors into the rear bumper, and make sure the "up" mark is on the top.



3 Vertical view angle.

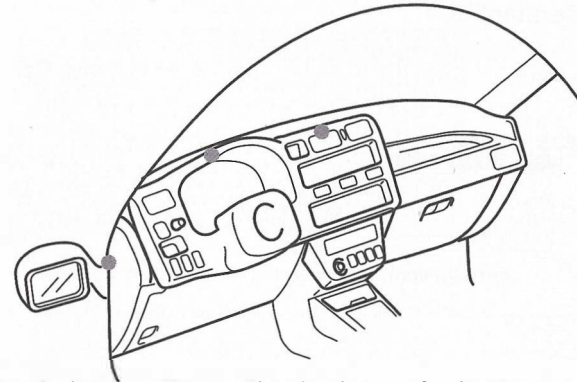


4 For truck application, use the underslung brackets and angled rubber spacer to fit the sensors onto metal bumper.

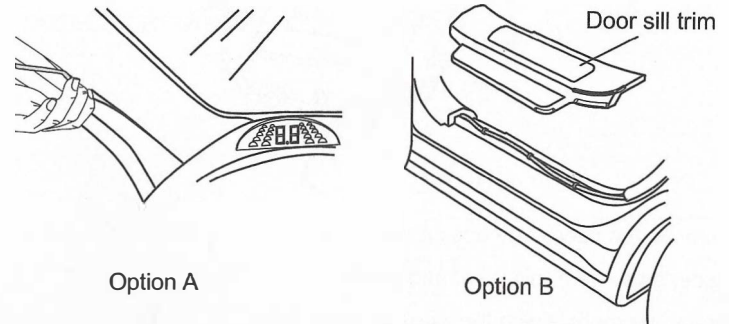


(3)

DISPLAY & BUZZER INSTALLATION



Select a display mounting position that is easy for the driver to see. Clean the surface with alcohol and use 3M tape to mount the display firmly.



Option A

Option B

Route the cable through vehicle panels (option A or B)

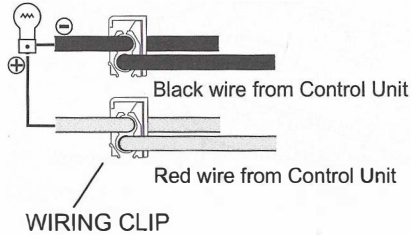
NOTE: If the vehicle is equipped with *SIDE* air bags, route the cable according to the drawing on "option B".

(4)

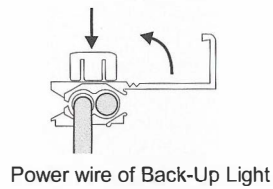
CONTROL UNIT INSTALLATION

1 Power Connection

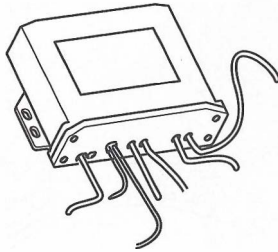
Reversing Light



Push E-Shape Contact



2 Fix the Control Unit



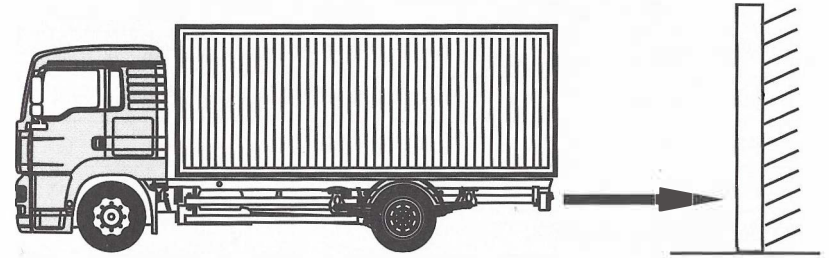
Remove the necessary back panel to mount the control module in a safe place, away from rain, heat and humidity.

Mount the module with the wires protruding downwards to prevent water ingress.

Strap all cables securely with cable ties.

Turn the ignition ON (do NOT start the truck or bus) and place in reverse gear and test the system.

TESTING



Check the detection range is in line with the table below.

CAUTION: Reversing must be done slowly.

Patterns of Indication

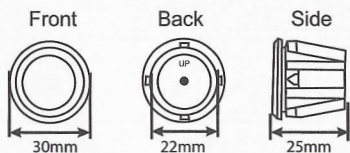
| DETECTION RANGE | DISPLAY | BUZZER |
|---|---------|----------------------|
| Power ON (Normal Self-Testing) | | Bi. Bi. |
| Power ON (System abnormal) E.g. 1 Channel CR failed. | | Bi |
| | | Bi — Constant |
| | | Bi.Bi.Bi. 0.14 sec |
| | | Bi..Bi.. 0.5 sec |
| | | Bi....Bi.... 1.2 sec |

TECHNICAL SPECIFICATION

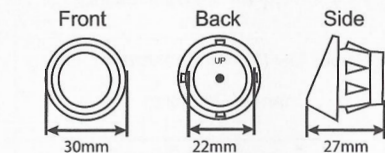
| DESCRIPTION | MIN | TYPE | MAX | UNIT |
|-----------------------------|------|------|------|------|
| Power voltage | 10 | 24 | 35 | V DC |
| Operating current | | | 150 | mA |
| Operating temperature | -20 | | 80 | °C |
| Operating frequency | 39.3 | 40 | 40.7 | KHz |
| Horizontal detection angle | | 120 | | ° |
| Vertical detection angle | | 60 | | ° |
| Distance detection accuracy | | 10 | | cm |
| Detection range | 0.05 | 1.0 | 2.5 | m |
| Buzzer sound volume | 75 | | 105 | dB |

OPTIONAL PARTS

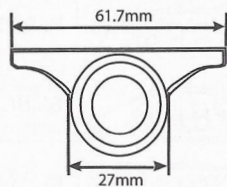
1 Sensors



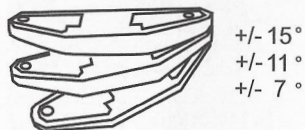
22mm rubber flat sensor – RF3H



22mm rubber angled sensor – RA7/R7P



22mm Upper Mounted Sensor – TM0/TMP



+/- 15°
+/- 11°
+/- 7°

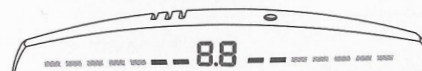
DISPLAY



DSP01



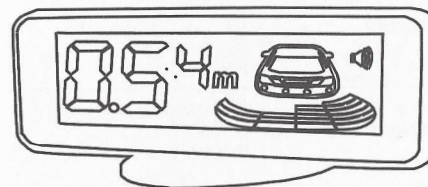
DSPS2



DSPS3



DSP09



DSP20

BUZZER



BUZ01



BUZ02



BUZ04

TROUBLE-SHOOTING GUIDE

| PROBLEM | CAUSE | SOLUTION |
|--|--------------------------------|--|
| The system fails to start when the reverse gear is engaged | Wrong connection of power lead | Check the power lead |
| | Wrong jack connection | Check the connectors |
| The system always detects the same distance | Sensor detects the ground | Check and adjust the vertical sensor angle |
| The system fails to detect the obstacles | Wrong sensors connection | Check and reset the system |
| False alarm | Sensor detects the ground | Check and adjust the vertical sensor angle |

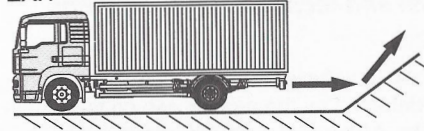
ACCESSORIES

- 1x Control box
- 1x Manual
- 4x Sensor
- 4x 5m sensor cable
- 1x Display / Buzzer
- 1x 15m Display cable
- 1x Accessory kits

**White Box and Color Sleeve are as per Customer's Requirement.

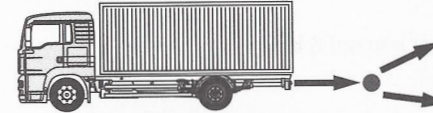
SPECIAL CASES

EX.1



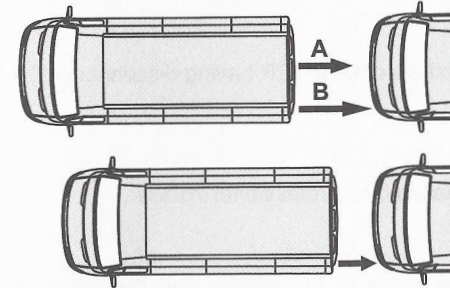
When the car approaches a smooth slope, the slope may not be detected.

EX.2



The sensors may not detect a small or smooth round pole.

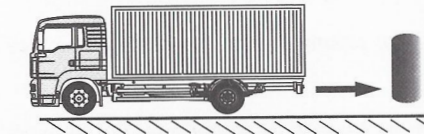
EX.3



Point A will be detected prior to point B, as it comes closer.

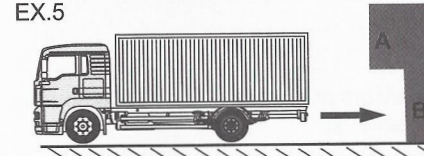
However, point A may fall into the sensors' blind zone, and point B will be misjudged as the closest point.

EX.4



The sensors may not detect any sponge-like material obstacle as the ultrasonic wave was absorbed.

EX.5



Complex situation: point A may not be detected.

IMPORTANT NOTICE

**** Carefully read the instructions and technical specifications.**



The parking sensors are an aid to vehicle reversing operations during parking. Not all objects are detected by the sensor and consequently reversing operations must be performed with the utmost care and attention.



Reversing speed must never exceed 6 km/h.



Stop the vehicle when the buzzer sounds continuously as this indicates an obstacle at not more than 45cm from the vehicle.



Perform connection operations only AFTER having disconnected the vehicle battery.



The unit must only be installed by a professional installer.



Any changes or additions made to the system and not expressly shown in this manual shall invalidate the warranty.



Clean the sensors regularly. For example, snow or dust can reduce efficiency.



In the event of washing with high-pressure water jets, the sensors could temporarily lose part of their sensitivity. This will return once the water has completely evaporated.



Do not position the unit, the sensors or the cables near heat sources such as the vehicle engine or exhaust.