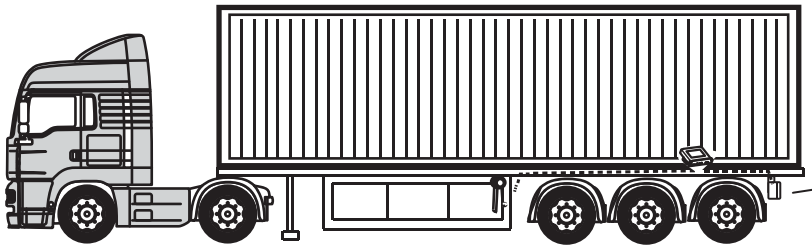
WIRING DIAGRAM

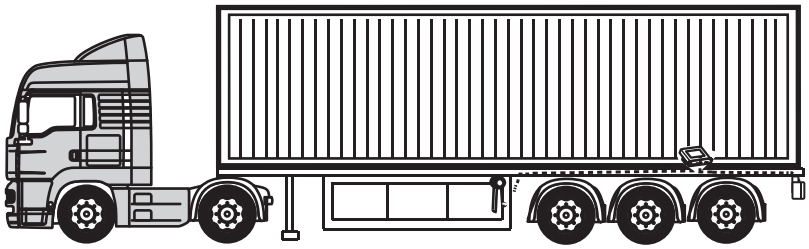
Offset Mode



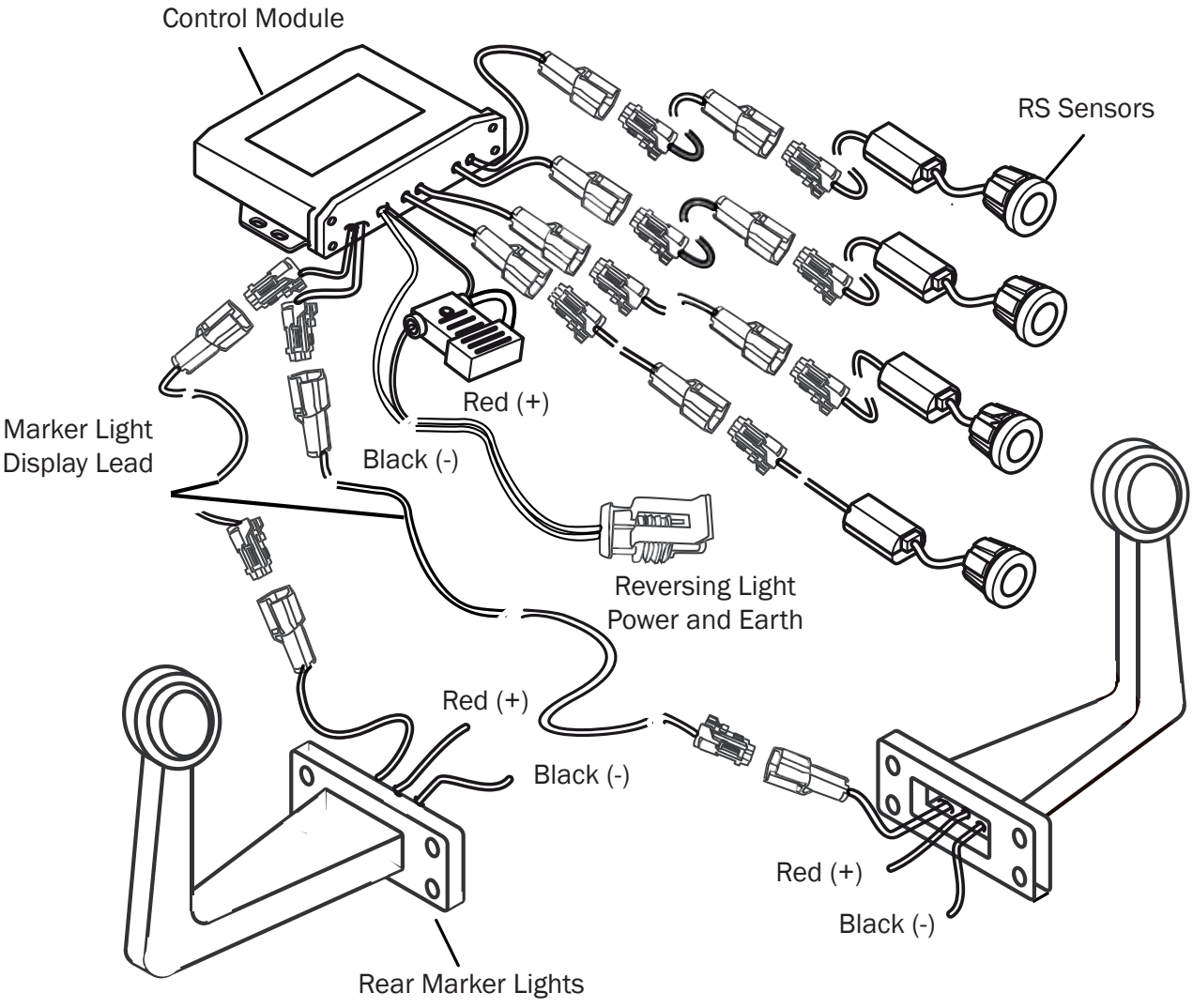
Bumper is not flush with back of trailer, but recessed by 45cm

Sensors mounted into a bumper that is recessed by 45cm

Standard Mode



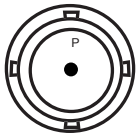
Sensors that are mounted into the bumper that is flush with the back of the trailer

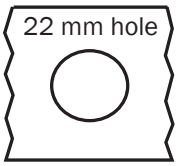


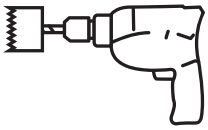
Connect to the Trailer Marker Light circuitry

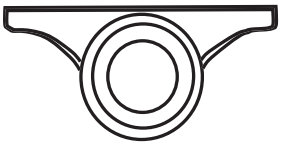
SENSOR INSTALLATION

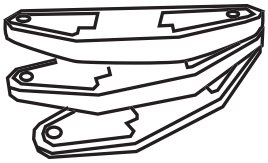
1. Positioning



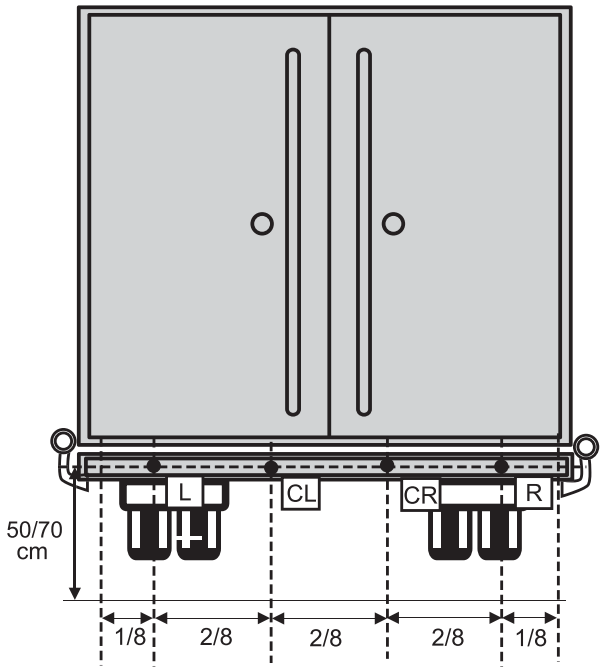




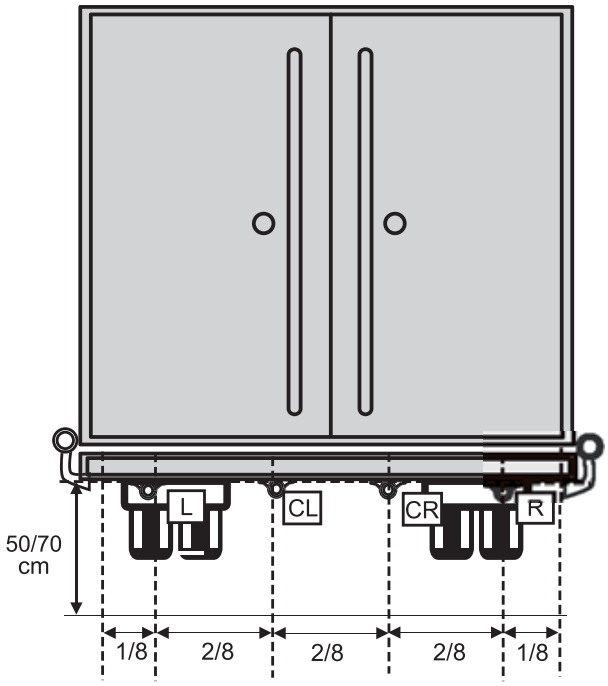




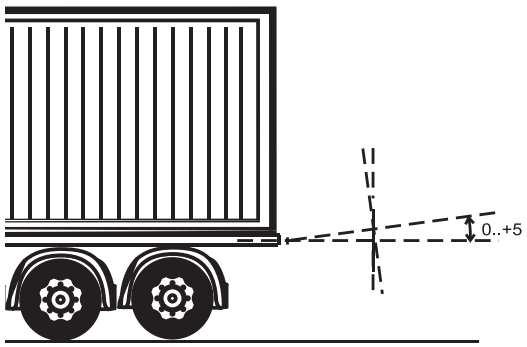
NOTE: Maximum wall thickness of bumper 3mm



2. Fitting the rubber sensors in the rear bumper, or screw the UMP sensors with the angled spacer under the bumper

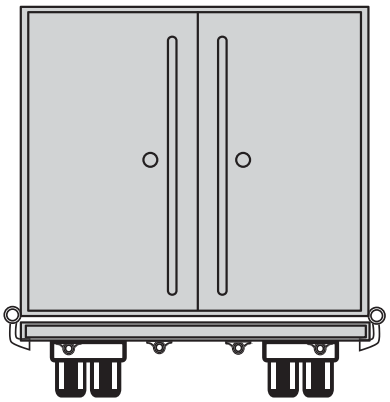


3. Vertical view angle



REAR MARKER LIGHT INSTALLATION

Rear Marker Light Mounting Positions



Correct Mounting Positions

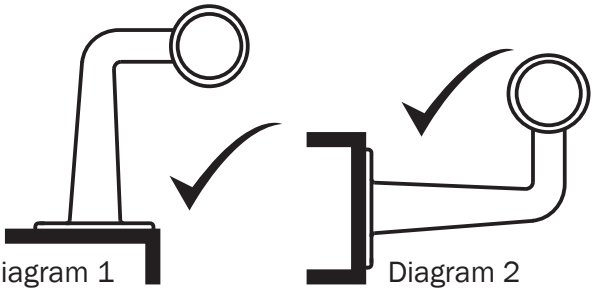


Diagram 1

Diagram 2

Incorrect Mounting Positions

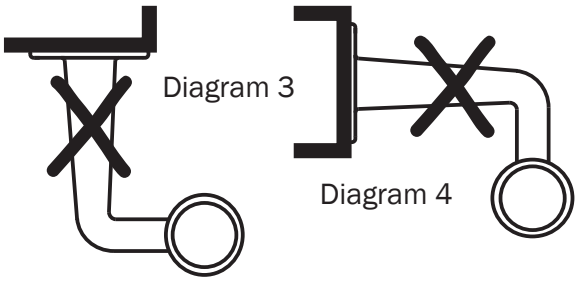


Diagram 3

Diagram 4

NOTE: Before you start to install the Rear Marker Lights, please make sure the Head Lights are switched OFF. If using the Non-Preferred Mounting position, additional 8mm drainage holes MUST BE DRILLED to prevent water/moisture build up.

1. Mount the Rear Marker Lights at the back of the trailer firmly and ensure that the driver is able to see the Marker Lights clearly through the side rear view mirrors.

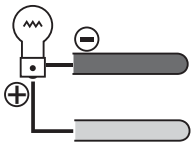
2. Connect the Marker Light Red (+) and Black (-) wires to the trailer's marker light circuits and run the seperate Marker Light lead back to the reversing sensor control module. Plug both left and right Marker Light display leads into the control module.

CONTROL MODULE INSTALLATION

1. Power Connection

Control module has a Smart Seal connector (part no. 28208-1) fitted as standard.

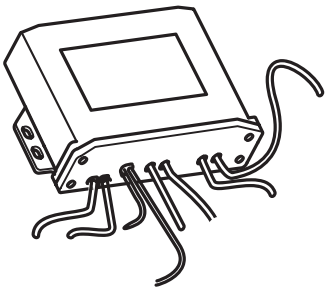
If the trailer does not have a compatible connector to connect to the reverse lights then cut off the Smart Seal connector, solder the wires (ensure polarity is correct) and insulate well.



Trailer Reverse Light

AMP Connector

2. Fix the Control Module



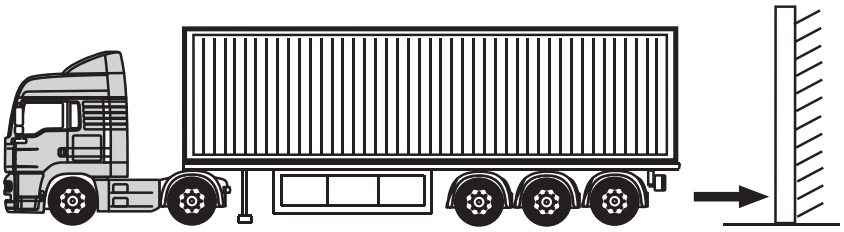
Remove the necessary back panel to mount the control module in a safe place, away from rain, heat and humidity.

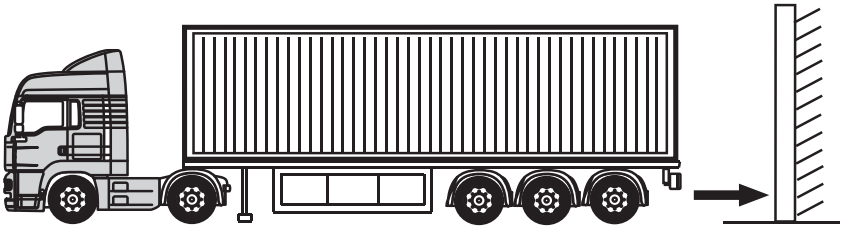
Mount the module with the wires protruding downwards to prevent water ingress.

Strap all cables security with cable ties.

Put on the parking brake, then turn the ignition ON (do NOT start the trailer) and place in reverse gear and Test the System.

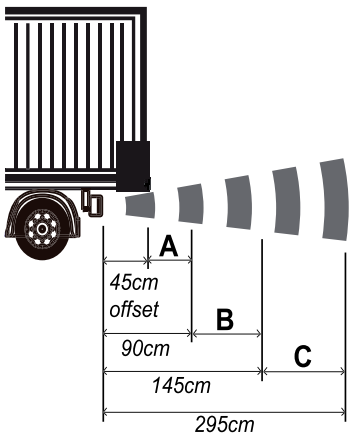
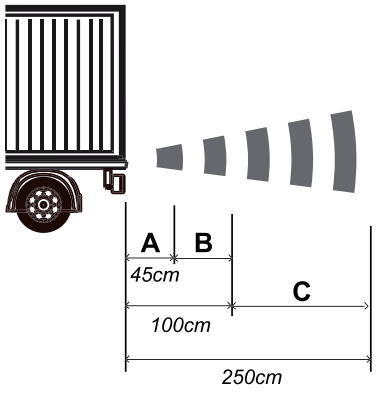
TESTING





Check that the sensors work properly as referred to below table of sensor detection range, and be aware of the system indication.

CAUTION: Back-Up must be done slowly.

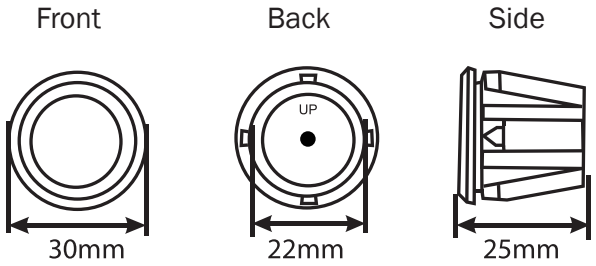
DETECTION RANGE	REAR MARKER LIGHTS	REAR MARKER LIGHTS
Power ON (Normal Self-Testing)	Amber lights - Flash Twice	Amber lights - Flash Twice
Power ON (System abnormal) EX. 1 Channel CR failed.	Amber lights - Flash Once	Amber lights - Flash Once
	 **A** Amber lights - Constant **B** Amber lights - Flash Fast **C** Amber lights - Flash Slowly	 **A** Amber lights - Constant **B** Amber lights - Flash Fast **C** Amber lights - Flash Slowly

TECHNICAL SPECIFICATION

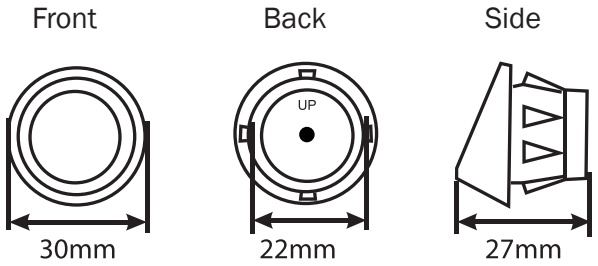
DESCRIPTION	MIN	TYPE	MAX	UNIT
Power voltage	10	24	35	V DC
Operating current			150	mA
Operating temperature	-20		80	°C
Operating frequency	39.3	40	40.7	KHz
Horizontal detection angle		120		°
Vertical detection angle		60		°
Distance detection accuracy		1		cm
Detection range	0.05	1.0	2.95	m

OPTIONAL PARTS

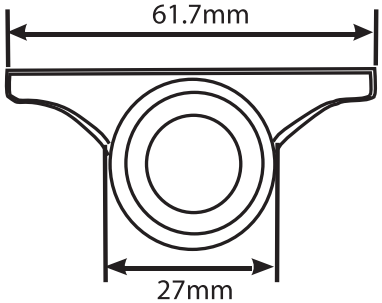
1. Sensoren

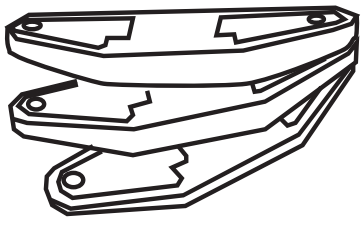


22mm rubber flat sensor
RFP (9067580)



22mm rubber angled sensor
R7P = 0906763





+/- 15 °
+/- 11 °
+/- 7 °

22 mm Upper Mounted Sensor
UMP = 0906759

TROUBLE-SHOOTING GUIDE

PROBLEM	URSACHE	LÖSUNG
The system fails to start when the reverse gear is engaged	Wrong connection of power lead Wrong jack connection	Check the power lead 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

Power Supply Cable	1 PC	Sensor Cables	2/3/4 PCS
Rear Marker Lights	2 PCS	3M Self-Adhesive Tape or Velcro	1 PC
High Quality Driller	1 PC	Installation Manual	1 PC
Sensor Angled Spacers	6 PCS		

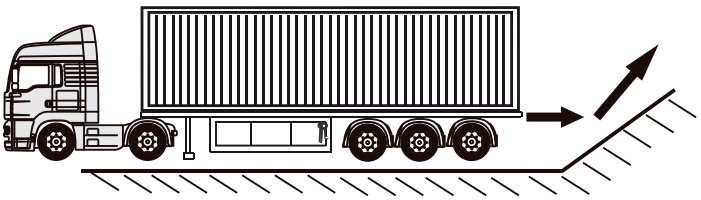
**White Box and Color Sleeve are as per Customer's Requirement.

IMPORTANT NOTICE

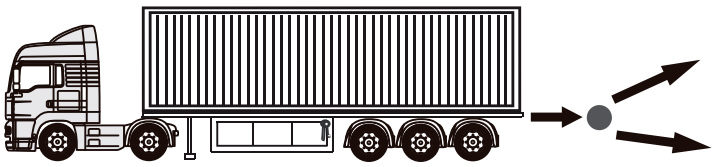
Carefully read the instructions and technical specifications.

- 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 Amber lights come on constant 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.

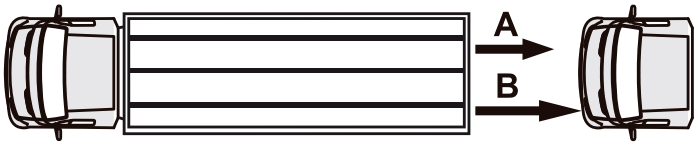
SPECIAL CASES



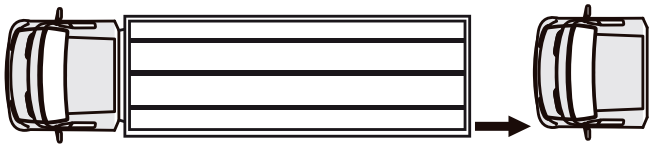
When the car approaches a smooth slope, the slope may not be detected.



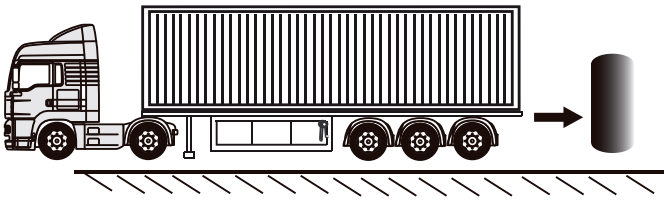
The sensors may not detect a small or smooth round pole.



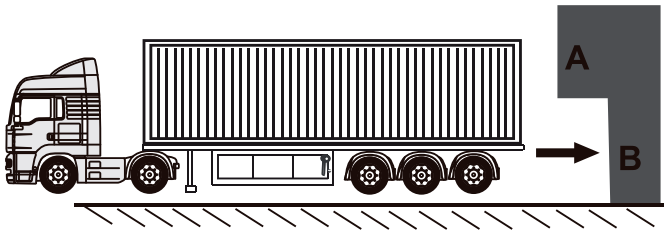
Point A will be detected prior to point B, as it comes closer.



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



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



Complex situation: point A may not be detected.