



Image for illustration purpose. Actual product might differ slightly.

0-870-01 - Wireless 24GHz Reversing Radar

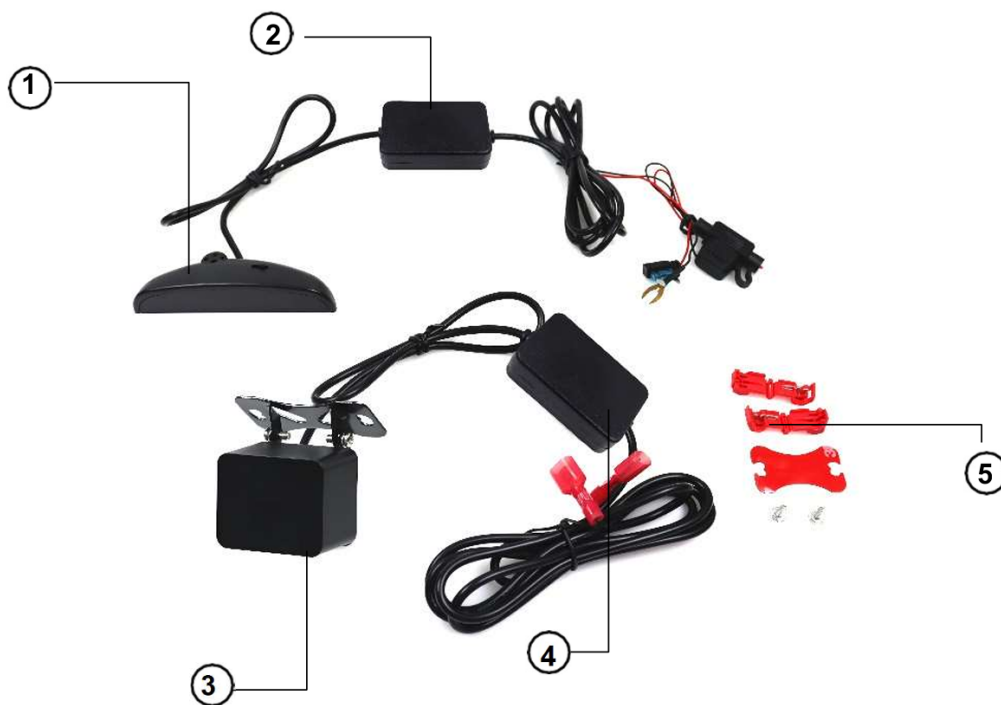
Wireless Reversing Radar 24GHz (ISM Narrowband 24-24.25GHz). 10-32VDC. Detection distance 0.5M - 10.0M in 0.1M increments. Wireless capability: 100M barrier free. Radar head IP67. CE UKCA E Mark R10 EMC.

GENERAL WARNINGS

General Notice: read before use

- Only to be used as a reversing aid.
- Do not paint or spray the sensors.
- Install with vehicle in horizontal position (please note max angle deviation tolerance $<1.5^{\circ}$ horizontal and vertical mounting).
- During the installation, your vehicle must be in neutral and the ignition switched OFF.
- Disconnect the battery following the vehicle manufacturer's instructions before commencing.

SYSTEM COMPONENTS



1. Wireless LED display (Receiver)
2. Receiver Unit(Wireless 433Mhz)
3. 24GHz microwave radar sensor
4. Transmitter Unit(Wireless 433Mhz)
5. Power clips for the installation

INTRODUCTION

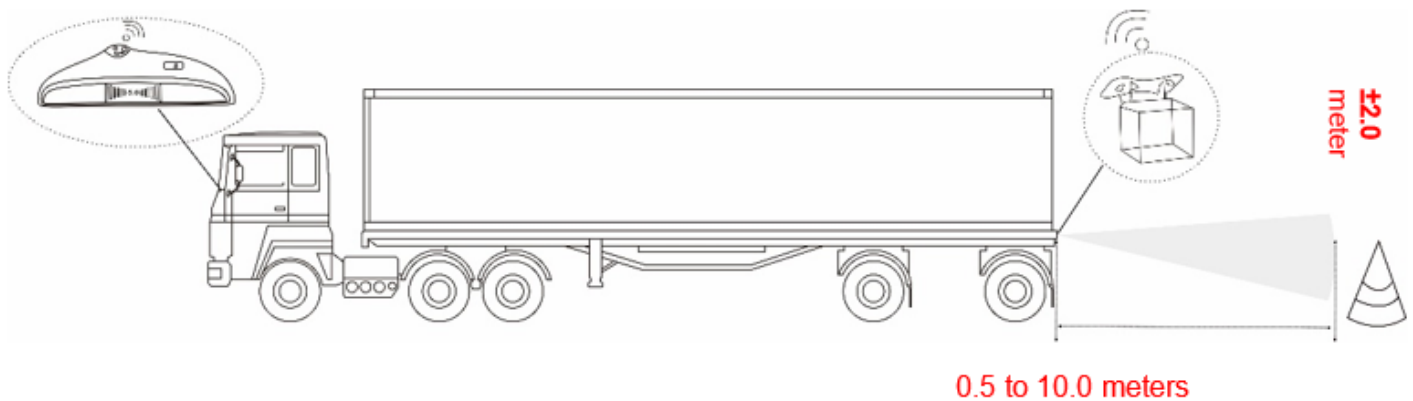
Thank you for purchasing this 24GHz microwave wireless reverse parking radar. This manual indicates the installation and operation of this product. Please read it carefully and keep to hand for future reference. Ensure that the product is working correctly before attempting permanent installation.

This unit is an automatic reversing alert system. It gives a safety warning which tells the driver the distance between the rear of the vehicle and any object in its path.

The radar sensor transmits a 24GHz microwave signal when the vehicle is reversing. When the signal senses an object, it will be reflected and received by the sensor unit. These reflected signals are analyzed by the sensor unit microprocessor to detect whether the obstacle is in your path and at what distance. The receiver unit illustrates the distances involved with a series of beeps and illuminated LED's letting the driver know how far away the closest object is located.

Below are graphical representations of the unit detecting patterns:

Notice: please do not install together with other product, which has same 433 MHz frequency range, it will affect the display (receiver) performance.



Feature:

- The ideal assistant for reverse parking detection.
- Detects objects (or people etc.) from approximately 0.5M up to 10.0M. behind the vehicle.
- Lessens the risk of damage from unseen objects when parking.
- Illustrates distance between vehicle and object by clear sound and red, yellow or green LED indicators.
- Automatic system activation when your vehicle is put in reverse gear.
- Stable wireless connection, no need long wire to go through the vehicle body to save huge labor cost.

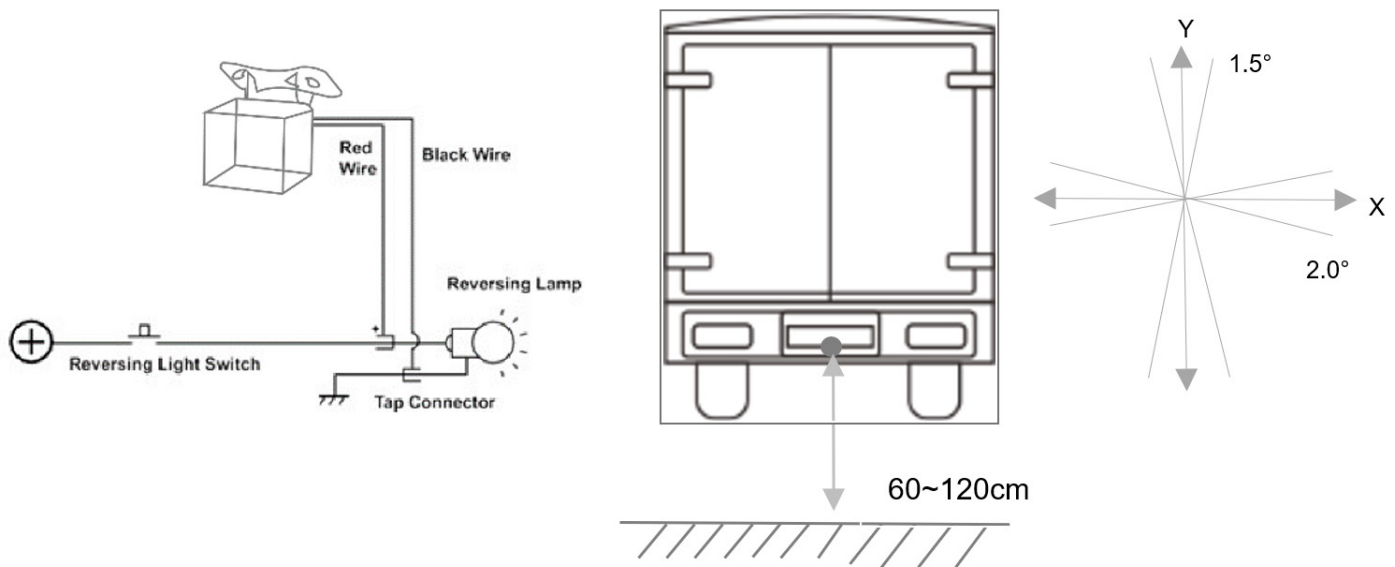
SYSTEM DIAGRAM

Below is a wiring diagram for the sensor unit showing the necessary connections, please follow all the instructions before installing this radar sensor

Locate a flat area at the rear of the vehicle. Radar sensors should be fitted between 60cm- 120cm from the ground.

If fitted higher than 120cm from the ground the sensors may not detect low objects.

If fitted lower than 60cm from the ground the signal may reflect from the ground and produce a false reading. The radar installation (horizontal deviation $<2.0^{\circ}$, vertical $<1.5^{\circ}$).



OPERATION

After powered on, the display will flash 3 times then show “8.8”. It will then give “Bi-Bi-Bi “ 3 voice to do self-checking .

As you begin to reverse and an object comes within range, you will hear a beeping sound from the display unit. The frequency or pitch depends on the range of the object being detected. If necessary, you can use the switch on the display to mute the Beep voice.

The detective range is 0.5M to 10.0M. Its distance resolution is 0.1m. The accurate distance is transmitted from the control unit (transmitter). The LED display corresponds to the shortest distance from the obstacle.

The table below shows the alarm speed corresponding to the range of the object detected.

Alarm Mode

When power on, the system will do system check-self by :Di.Di.Di” 3 voice(3Green+2Yellow 2Red) , the Green and Yellow indicator flashed in the display

Stage	Distance	Awareness	Alarm Sound	Digital Display	Indication Bars
1	>10.0m	Safety Area	Silence	-	-
2	10.0~5.0m	Safety Area	Silence	10.0~5.0	3Green
3	5.0~2.0m	Alarm Area	Bi...Bi...	5.0~2.0	3Green+2Yellow
4	2.0-0.5m	Alert Area	Bi..Bi	2.0-0.5m	3Green+2Yellow 2Red
5	<0.5m	Danger Area	BiBiBiBi continuous beep	Only display”——“	3Green+2Yellow 2Red

TECHNICAL SPECIFICATIONS

Type	Wireless Reversing 24GHz Radar
Operation Voltage	10-32VDC
Current Consumption	0.12A at 12VDC
Radar Frequency	ISM Narrowband 24.0GHz to 24.25GHz
Detection Range	0.5M - 10.0M (in 0.1M Increments)
Wireless Capability	100M (Barrier Free)
IP Rating	Sensor Head IP67
Detection Angle	170° H, 120° V
Wireless Frequency	433Mhz
Operation Temperature	-30°C to + 60°C
Storage Temperature	-30°C to + 75°C
Certificate	E Marked. EMC R10

*not to scale