Installation and Owner's Manual

MULTIFUNCTIONAL LASER
DETECTOR AND PARKING
ASSISTANT SYSTEM

Contents

Congratulations

Thank you for purchasing the latestest multifunctional laser detector and parking assistant system with advanced new detection technology and new communication circuitry to ensure top-class performance. This laser device includes integrated multi-laser communication functionality for detecting laser signals and doubles as a parking assistant.

Safety Attention

- Use only original included parts for installation. Do not plug any third-party components into your unit and do not plug any supplied components into any third-party products, as this may cause failure and will void warranty.
- Take special care while installing the sensors. Damaging the cable or the factory installed connector on the cable may cause malfunction and will void warranty.
- The laser device parking sensor function can NOT detect glass or other transparent objects.
- While driving, especially in winter months, dirt and filth can accumulate on the outer sensor lens, which can affect the sensor's performance. Wipe the lens periodically with a dry or moist cloth. Do not use cleaning solvents other than water.
- Laser signals emitted from the parking sensor can cause interference with other laser equipment. If such case is detected by the system it will switch off automatically.
- If the vehicle the the laser device is being installed on is already using another laser system like laser cruise control for example, it is possible the two devices could interfere with each other. We highly recommend testing fully before completing the installation.

- Use of laser products may be regulated by local laws. Check local laws before using this product.
- Do NOT look directly at the sensor's lens while powered on and operating as it could cause eye damage.

Package Contents

- The laser device has one receiver unit, one control unit and multiple sensor units depending on which version you purchased - the standard model has two sensor units. It is possible to purchase additional sensors for the rear of your vehicle if required.

- Bracket Mounting Accessory for 2 sensors
  2pcs Brackets, 4pcs hexagon socket head screws with 4pcs washers to fix the sensor at the bracket, hexagon wrench, 6pcs tapering screws and washers to fix the bracket at the vehicle, the bobble level.

- 3M Tape & Screws for 2 set sensor:
  7pcs cable ties for sensor cable, 3pcs 3M fastener tape(2pcs for control unit and 1pc receiver unit), 4pcs screws for control box assemble, 2pcs 3M double-sided tape for sensor.

- Straight 12-volt DC power cord for receiver unit.

- The hardwire kit with the fuse to connect with control unit at the vehicle battery.

- Operation manual

Laser Device and Accessories

Laser device RECEIVER

Laser device CONTROL UNIT

Laser device SENSOR

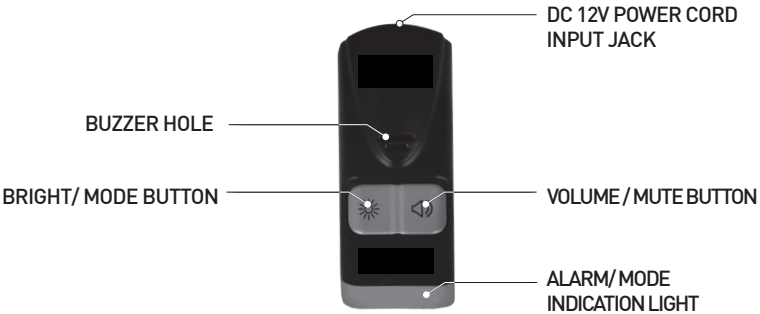
12V DC POWER CORD

BRACKET MOUNTING
ACCESSORY

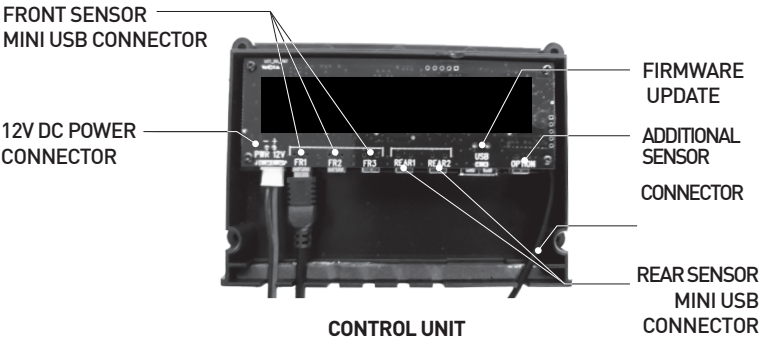
3M TAPE &
CONTROL HOUSING ASSEMBLE
SCREW

HARDWIRE KIT

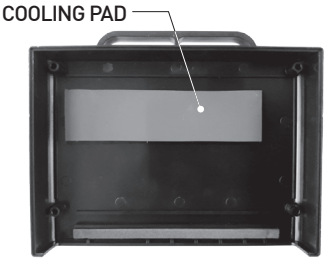
Basic Features and Controls



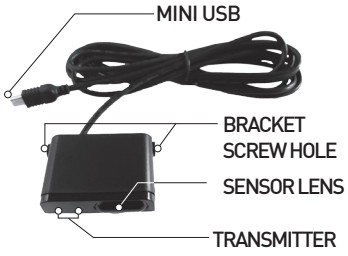
RECEIVER UNIT



CONTROL UNIT



CONTROL TOP CASE INSIDE



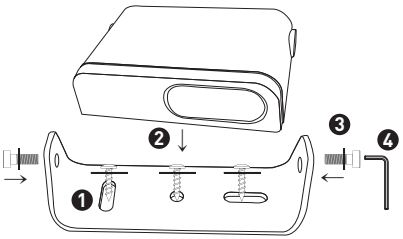
SENSOR UNIT

Installation

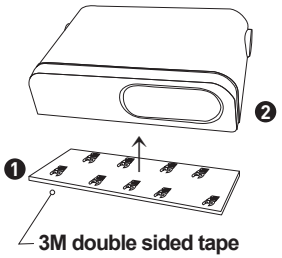
We recommend using a professional auto electrician if you are not familiar with this type of installation.

Sensor Installation

- It can be mounted between the front grill partitions or above or below the bumper.
- Use the 3M double-sided tape to mount the sensor or the bracket, bolts and wrench kit depending on the location chosen. Mount the sensors in as horizontal a position as possible using the bubble spirit level provided.
- Use the bubble spirit level to double check the alignment of the sensors and ensure they are parallel to the road after installation.



BRACKET MOUNTING

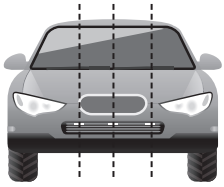


DOUBLE SIDED TAPE MOUNTING

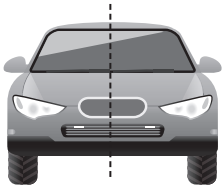
Please note that both sensors must be mounted so that they have a clear unobstructed view of the road ahead. Do not mount behind a mesh style grill and if mounting behind a slatted style grill, ensure the sensors are not obscured in any way or they will not work effectively.

Sensor Position

If you have two sensors, install each sensor halfway between the side and the center of the vehicle. In case of three sensors, install one at the center of the vehicle and each two sensors halfway between the side and center sensor.

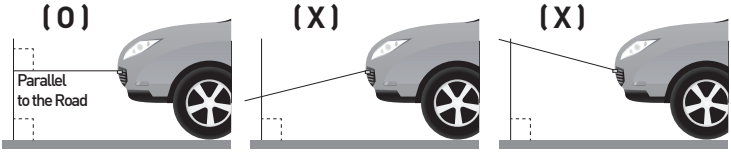


3PCS SENSORS

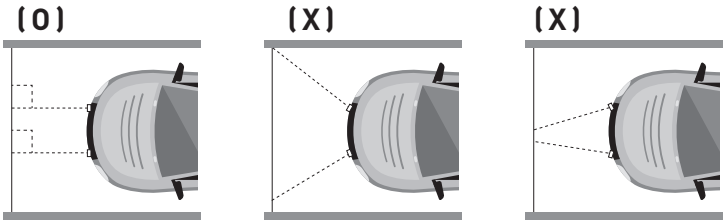


2PCS SENSORS

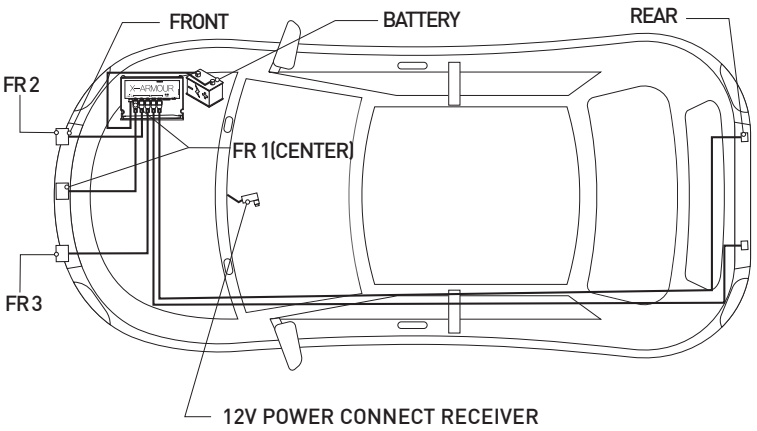
☞ For optimal performance, sensors need to be facing straight forward, not at an angle. Make sure that each sensor is parallel to the road. When you install the sensor, vehicle must be located on a flat surface in order to position sensors parallel with the road. Make sure that sensors have an unobstructed "view" of the road. Do not install sensors behind a solid surface, which would block laser transmission and reception.



Side view (parallel to the road)



Top view (parallel in front)



Control Installation

- Locate an appropriate place to put the control unit inside the bonnet. It is recommended to locate near battery like the top of the battery. Using the 3M fastener tapes at the bottom or cable ties at the handle to fix.
- Connect the sensors to the FR1, FR2, FR3 sockets for the front side. Connect the sensors to the REAR1 and REAR2 sockets for the rear side. Additionally, one more sensor can connect at 'OPTION' socket for front or rear side to cover large vehicle.
- Connect the DC12V power cable socket from the hardwire kit. There are two 'Y' type terminals from the other side of hardwire kit for battery connection. Connect the red line 'Y' terminal at the '+' and connect the black line 'Y' terminal at the '-' location. When the power is correctly connected, the red light is on at the 'PWR' of the board.

☞ There is cooling gray pad attached between the board and top housing. It cools down the temperature inside the housing.

Receiver Installation

- Locate an appropriate place to install the receiver being careful not to position in a place where it will interfere with the drivers ability to drive the vehicle safely interrupt driving. Use the 3M fastener tapes at the bottom to fix to fix it in place if necessary. Connect to DC12V power with cigar cable supplied.

Operation

Power-On/Off for control unit

The control unit recognises the car battery noise when engine is on. Whenever you start the engine, the control unit automatically turns on and will connect to the Receiver. When the installation is complete, please check that 'PWR' on the control board turns on when the engine is on. When it is in 'Laser diffuser' mode, the 'PWR' shows red color. When it is in 'Parking assistant mode' the 'PWR' shows blue color.

Power On for Receiver unit

When you connect the Receiver to DC12V power, it will automatically power on. When successfully connected with the control unit, it automatically goes to laser detection mode indicated by the red LED. If the Receiver fails to connect, the red LED will blink slowly.

Receiver unit brightness control (Dim mode)

Press the ☼ (BRIGHT/MODE) button to toggle through the four levels of brightness mode: bright, dim, dimmer and dark. The selected brightness mode is saved after power off.

Receiver unit mode change (Switch between Laser Detector and Parking Assistant modes)

Press and hold the ☼ (BRIGHT/MODE) button to cycle through the different modes.

Press and hold the (BRIGHT/MODE) button for 4~5 seconds to cycle through the different operational modes.

- When in Laser Detection mode only, the Receivers LED indicator will glow purple.
- When in Laser Detection mode with Advanced Warning feature, the Receivers LED will glow red. In this mode the unit will activate for 5 seconds and then automatically switch off into parking mode (Please note that this setting may be illegal in some countries so check local laws before use)
- When in Laser Parking mode, the Receivers LED indicator will glow blue.

How to connect 3 sensors to the control box

When you connect 2 sensors, you can connect them to either FR1, FR2 or FR3 on the control box. However, if you are connecting 3 sensors to a larger vehicle that requires greater protection please locate FR1 sensor at the centre of the vehicle. FR2 and FR3 should then be installed on either side.

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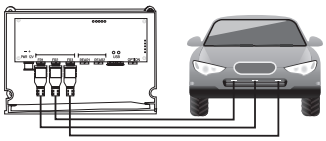

3PCS SENSORS(FR1 : CENTER)

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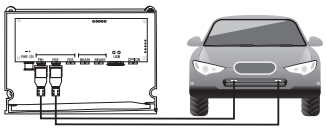


2PCS SENSORS

Parking Assistant Mode Operation

When Laser device is in 'Parking Assistant Mode', the indication light shows blue-on. It provides alarm sound and blue light blinking to warn you of the presence of obstacles which is very close distance like 50~80cm.The warning distance might be a little different by obstacle's color. The bright color vehicle like white or gray gives longer distance warning.

☞ The parking assistant light beam is very straight and narrow so it can recognize the small area. Therefore the parking assistant mode is activating in low speed. Do NOT use in high speed driving. If the sensor is located too high, it might be difficult to recognize the low positioned obstacle.

Receiver unit volume control and auto Mute

Press the (VOLUME/MUTE) button to toggle through three levels of volume - Low, Middle and High. The selected volume level will automatically be saved.

Press the (VOLUME/MUTE) button to temporarily mute an alarm. The alert volume will return to normal after 1 minute of inactivity.

Low Battery Alarm

If the vehicle battery is under 11 volt, the receiver will flash blue and red at the same time.

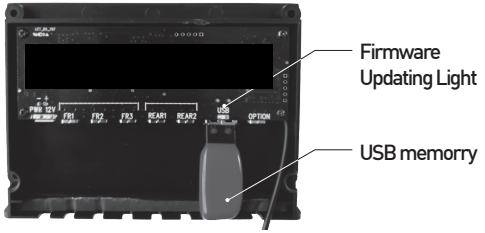
Factory Setting

The default factory settings are as follows.

+ Laser detector mode
+ Volume - high
+ Brightness - high

Updating Firmware - Only update if advised by the technical support team.

Firmware will be available to download from our website when required. After downloading the firmware transfer to a suitable USB memory drive, plug the USB memory into the 'USB' connector on the laser device control unit. The 'USB' updating LED will flash for 10 ~15 seconds during the firmware update. When the update is complete the red LED will stop blinking and switch to steady on.



One-Year Limited Warranty

Your laser device comes with a warranty against all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions.

☞ Warranty cover will not be provided for any incidental or consequential damages arising from the use or misuse of this laser device. This warranty does not apply if the serial number has been removed or if your laser device device has been subjected to physical abuse or modification or damaged with improper installation. Please keep in mind snow, dirt and other debris on the lens will decrease the performance of the laser device. The lens must be kept clean. The warranty does not include installation or deinstallation costs.

Troubleshooting

If the Receiver unit does not turn on:

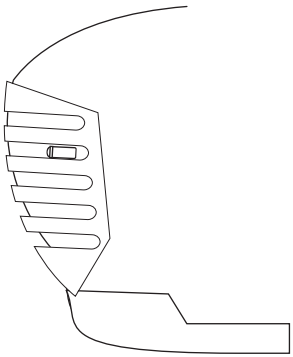
- Check the power cord. Be sure all power connectors are properly installed.
- Check the fuse that controls power to the cigarette lighter socket.
- The cigarette lighter socket might be dirty. Clean it with fine emery cloth to ensure a good, clean connection.

If the Receiver unit is blinking red light slowly when it turns on:

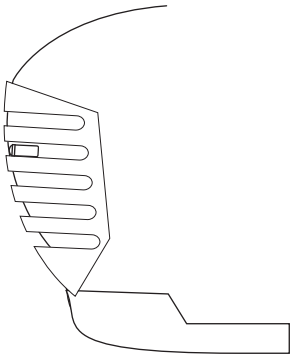
- This indicates that there is no wireless connection between the Control box and the Receiver. Power both units off and on again. Try moving the control box and receiver to a different location and/or closer together.

If the Receiver emits a constant alarm in the 'Parking Assistant Mode' when there are no obstacles in the way

- Check the location of the sensors and move them forward if they are mounted behind the front line of the grill, as per the diagram below



Incorrect installation



Correct installation

If the Receiver gives no alarm in 'Parking Assistant Mode':

- The parking assistant's light beam is very straight and narrow so it can only recognise a small area of obstacles. If the sensor is located too high, it might be difficult to recognise obstacles that are loer down. Please adjust the sensor location for better parking assistant mode.

If the Receiver does not alert to a laser gun or laser van:

- Check the sensor's lens are clean and clear of dust, dirt and other debris.
- The laser gun or laser van might not have been active or in use as you approached.

If the Control unit does not turn on:

- Make sure that the hardwire kit's connection to the control unit and connection to the battery(+/-).
- Please check the fuse(3A) at the hardwire kit.

If the Control unit does not turn off:

- In case your vehicle is installed with many electronic product and used when engine off, the control board does not turn off immediately. However, the control unit is also checking the receiver's wireless link signal at every 2 hours. If there is no link signal from receiver which means receiver is turned off, the control board turn off automatically.

Specifications & Dimension

Specifications

- Bandwidth Wavelength: 905 nm
- Classification: 1M (Eye Safe) Laser
- 433Mhz Wireless Communication
- Operational Temp: - 20°C + 80°C / – 4°F + 176°F
- Power Requirement: 10V – 16V

Dimension

- Sensor (LxHxW): 35mm x 15mm x 53 mm
- Sensor Cable for front (L): 2.5m (8.2 ft)
- Sensor Cable for rear (L): 6.5m (21.3 ft)
- Control Box (LxHxW): 92mm x 20mm x 130 mm
- Power Supply Cable (L): 1 m (3.2 ft)
- Receiver Set(LxHxW): 74mm x 20mm x 34mm