



Hitch Mounted Wireless Reverse Obstacle Detection System Manual

Congratulations

Your purchase of the Hitch Mounted Wireless Reverse Obstacle Detection System will provide you with a state of the art, highly sophisticated, ultrasonic obstacle detection device for your vehicle. It is manufactured to ISO standards, and under normal circumstances requires little maintenance. Under no circumstances should you attempt to open the Sensing Unit or RF Receiver. Doing so will void all manufacturer's warranties. (Step weight should be limited to less than 250 pounds or 110kgs.)

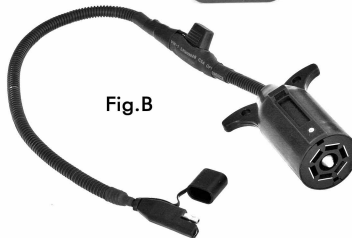
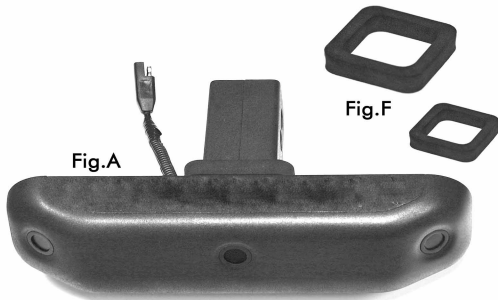
KIT CONTENTS:

Your Obstacle Detection Kit contains the following items:

- (1) Sensing Unit, with 2-pin Power harness, (Fig.A)
- (1) 7way Power Plug, with 18" 2-pin harness. (Fig.B)
- (1) *Wireless RF Receiver. (Fig.C)

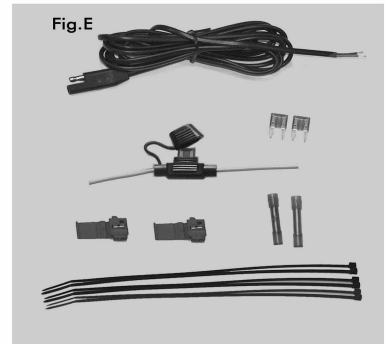
Factor Programmed to match A and C

- (1) HitchLock with (2) keys. (Fig.D)
- (2) Foam Stabilizers (Fig. F)
- (2) Hitch Lock Spacers (Fig. G)



- (1) 2 Pin Reverse Power Hard Wire Kit: (Fig.E)

- (1) 2-pin plug with 9 foot wire harness
- (2) 22-18awg Red ScotchLock
- (6) 8" tie straps for securing wires
- (1) inline mini blade fuse holder 2A
- (2) spare blade fuses included
- (2) butt splice red
- (1) Installation Instruction Sheet



UNDERSTANDING YOUR OBSTACLE DETECTION SYSTEM'S FUNCTIONS

Your system sends and receives *Ultrasonic Signals* that are projected from sensors mounted in the Sensing Unit. As the signals "echo" off of objects in the detection field, and return to the sensors, the system's microprocessor exports them to its onboard, output signal transmitter. These signals are transmitted through *Radio Frequency Waves* to the *RF Receiver* located in the vehicle, the detection signals are then translated into Audible Warnings and Visual notifications for the driver.

Your system will detect, and notify the driver with 3 distinct "Tones" (beeps), which correspond with your vehicle's distance to objects in the detection zone. Upon engaging into Reverse Gear, you should hear 1 distinct tone synchronized with 1 flash of the visual indicator light. This serves multiple functions:

- 1) Notification that the system is active and is scanning for objects in the detection field.
- 2) As a reminder that you have selected the reverse gear.
- 3) As an indication that your system has performed a self check. If more than two "quick beeps" occur your system may need to be checked. If warning tones continue after reverse gear is initially selected, check for obstacles behind the vehicle. If nothing is behind vehicle refer to troubleshooting guide.



Overview of your detection Zones and Notifications

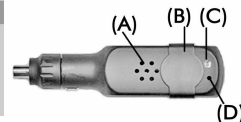
"Zone1" Slow beeps and Slow Green flashing LED from the wireless receiver.

"Zone2" Rapid beeps and Rapid Yellow flashing LED from the wireless receiver.

"Zone3" Solid tone and Solid Red LED from the wireless receiver.

Wireless RF Receiver:

- (A) Speaker
- (B) Volume/LED Slider
- (C) Visual Indicator LED
- (D) Volume & Reprogram Control



UNDERSTANDING YOUR WIRELESS RECEIVER

Your Wireless Receiver uses RF (radio frequency) technology to communicate with the control module. This receiver plugs into a vehicle Cigarette lighter or other similar power source. The receiver features: (Fig A)

- A) Internal Piezo speaker for efficient audio warning tones (beeps).
- B) Slide cover to to adjust volume of speaker or to cover L.E.D. Cover slides front to back to either cover speaker ports to lower volume levels, or to cover L.E.D if lighting is not desired.
- C) Multi-color visual indicator L.E.D for Zone by Zone Visual alerts. The L.E.D colors include Green, Yellow, and Red. See page 2 for Specifications and Relationship to "Zones".
- D) Reset style button access hole. Functions as the RF Receiver Hi/Lo volume toggle, and RF Receiver programming port.

HOW TO ADJUST THE VOLUME AND REPROGRAM THE RF RECEIVER

Your RF Receiver features a programming port. This port has two programming functions:

- (1) Programming the RF Receiver to the sensing unit. (Normally Preset from Factory)
- (2) Hi/Lo volume selector.

Hi/Lo Volume Selection:

To change the Volume setting on the Receiver, the control module should be connected and the vehicle "do not start the vehicle," should be in the reverse gear with the parking brake set. Using a Toothpick, or similar non-metal "probe", insert into programming port and press and release quickly.

* Programming Your Replacement CLR: (Fig.B) (additional person recommended or return vehicle to authorized dealer for assistance).

To program your replacement CLR receiver to the sensing unit, the vehicle should be in the reverse gear with the reverse lights on, with the parking brake set. Do **not** start the vehicle. Using a Toothpick, or similar non-metal "probe", insert it into programming port and press and hold for at least 5 seconds, then release. Upon releasing the re-programming button, you will hear one long confirmation chirp, and see a red light on the CLR. During this long chirp, the unit is memorizing code form the transmitter at the rear of the vehicle. At this time, an additional person should be slowly walking between Detection Zones 1, 2 & 3 to confirm the detection pattern. After reprogramming, test the system by slowly backing toward a large object that will be detected in each zone.

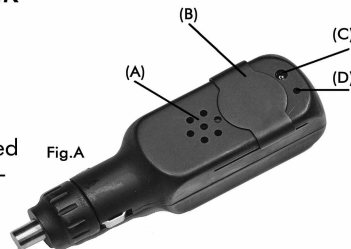


Fig.A

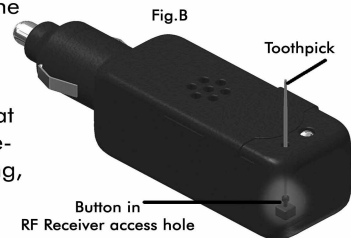


Fig.B

TROUBLESHOOTING

(for additional information, please contact your installation center.)

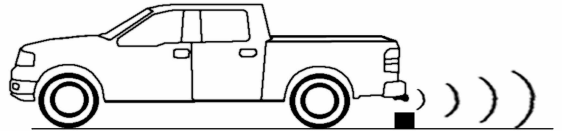
Symptom	Remedy
No Function in Reverse	Check power to receiver and transmitter Reprogram Receiver Check Fuse in Receiver Check in-line fuse in Sensing Unit Check 7 way harness Poor Ground Wire
Inconsistent Operation	Refer to page 3, Fig. B Reprogramming Wireless Receiver. FCC part 15 allows to accept some interference.
Constant Tone in Reverse	Always check for object behind vehicle Make sure sensors are clean of debris

Keep sensors clear of any solid mass or debris to maintain accurate performance.

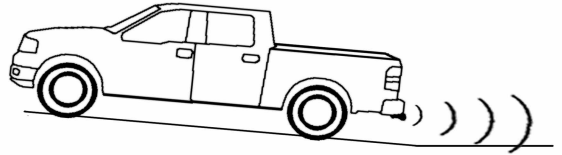
SITUATIONS WHERE MOMENTARY, OR NO DETECTION IS EXPERIENCED

Your system utilizes highly advanced Ultrasonic technology to locate objects in your vehicle's path. Under some circumstances however, an object may not be detected. Always use extreme caution when reversing, looking behind your vehicle and maintaining speeds of less than 3 miles-per-hour.

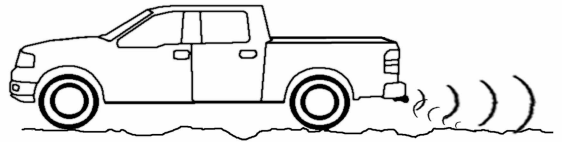
A small object, which is under your bumper or too close to the vehicle, may not be detected due to the dispersion of the sensor's signal.



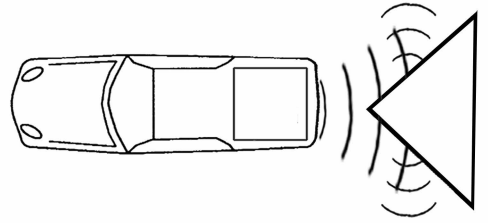
When reversing down a steep slope or driveway, gravel and/or the road surface may cause momentary detection signals due to the sensors following the sloping angle of the vehicle.



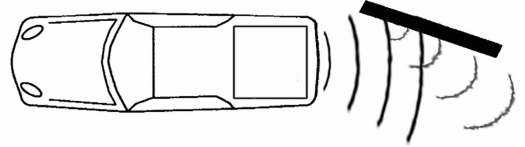
Reversing on loose gravel, Rough surfaces, and Pot Holes may produce intermittent detection due to the signal bouncing off of refractive surfaces behind the vehicle.



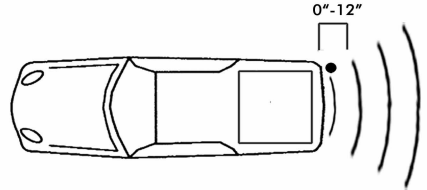
Reversing at an angle towards a partial wall or other large flat surface may refract ultrasonic signals, causing an object not to be detected.



If reversing towards a 90° angle, such as a corner of a wall or pillar, sensor detection pattern will refract as shown until vehicle is close enough to receive signal back from corners. In such situations vehicle could reach very close distances before detecting.



Due to natural projection angle of the sensors, a natural "no coverage" area is common with the system at the outer corners of the vehicle. This may occur at about 0-10" from the bumper's outer corners.



INSTALLATION GUIDE

This Hitch Mounted Wireless Reverse Obstacle Detection System Is For Trailer Hitch Heights Over 15" From Road Surface.

INSTALLING YOUR HITCH MOUNTED PARK ASSIST.

Your system can be installed with a few easy steps, providing your vehicle comes equipped with a 7-way connector socket and a standard 2" Hitch Receiver. If your vehicle is not equipped with a 7-way connector, you can obtain a power connection using the provided 2-pin reverse power hardwire kit and retrieve power at the reverse light harness.



Fig.A



Fig.B



Fig.C



Fig.D

You can begin by inserting the 7way plug into the vehicle's 7way socket. (Fig.A).

Insert the Sensing Unit into the Trailer Hitch of the vehicle. (Fig.B).

Use the HitchLock to secure the 2" sleeve and the Sensing Unit into the vehicle's trailer hitch receiver. If using as a step, do not exceed 250 lbs. (Fig.C).

The wireless RF Receiver can be plugged into the power point receptacle (12 volt port). Do not use the the cigarette lighter receptacle.

HITCH RECEIVER CONVERSION AND HARDWARE KIT

Most vehicles come equipped with a 1¼" or a 2" Trailer Hitch Receiver. Your system can be converted to fit the vehicle's receiver by simply sliding the 2" sleeve (A), off the center of the 1¼" system shaft for use on 1¼" hitch receivers. The HitchLock Kit (C,D,E) comes with 2 sizes of Pin Shafts (C and D) to accommodate the 2" and 1¼" Hitch Pin Holes. Included are rubber hitch lock spacers (G) designed to take up slack between the hitch receiver pin holes and hitchlock. The Foam stabilizers (F) are included to take up slack between unit and vehicle's hitch receiver.

If your vehicle does not have a 7-way trailer plug, your system includes a 2 pin Reverse Power Harness Kit (H). For instructions, please refer to install card included with hardwire install kit.



(Refer to page 1, Fig.E)

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