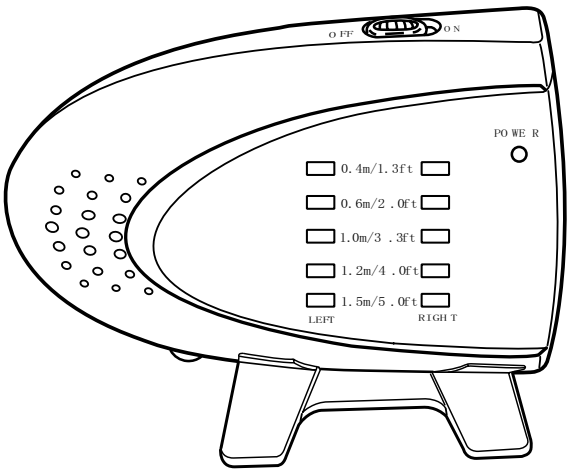
Wireless Parking Sensor

Model No.: PDC320

Owner's Manual



Read these instructions completely before using this product.

Retain this Owner's Manual for future reference.

CONTENTS

SAFETY PRECAUTIONS

This safety alert symbol indicates that a potential personal injury hazard is present. The symbol is usually used with a signal word (e.g., **WARNING**) which designates the degree or level of hazard seriousness.

The signal word **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

The signal word **NOTICE** indicates a situation which can cause damage to the product, other personal property and/or to the environment, or cause the product to operate improperly.

The combination of the safety alert symbol and signal word is used in safety messages throughout this manual and on safety labels on this product.

⚠ WARNING All safety messages that follow have WARNING level hazards. Failure to comply could result in death or serious injury.

Wireless Parking Sensor Safety

When installing the Wireless Parking Sensor, the vehicle must be turned off with the vehicle in park and the park brake applied.

Do not attempt to install the Wireless Parking Sensor while the engine is operating.

Do not modify the wiring in any way.

Only install the Wireles Parking Sensor to a 12-volt DC system. Connecting to anything other than a 12-volt DC system may damage the Sensor components or the vehicle electrical system.

If you are not confident working with 12-volt DC vehicle wiring, have the Wireless Parking Sensor professionally installed.

This device as well as other wireless devices may be subject to interference. Interference may be caused by cell phones, Bluetooth headsets, Wi-Fi routers, power lines and other various electrical equipment.

Keep all power cords and wires away from the vehicle's mechanical controls.

Do not install the Wireless Parking Sensor to the front of your vehicle.

Do not use in a vehicle which has an alarm or horn when driving in reverse.

Do not paint or spray the sensors.

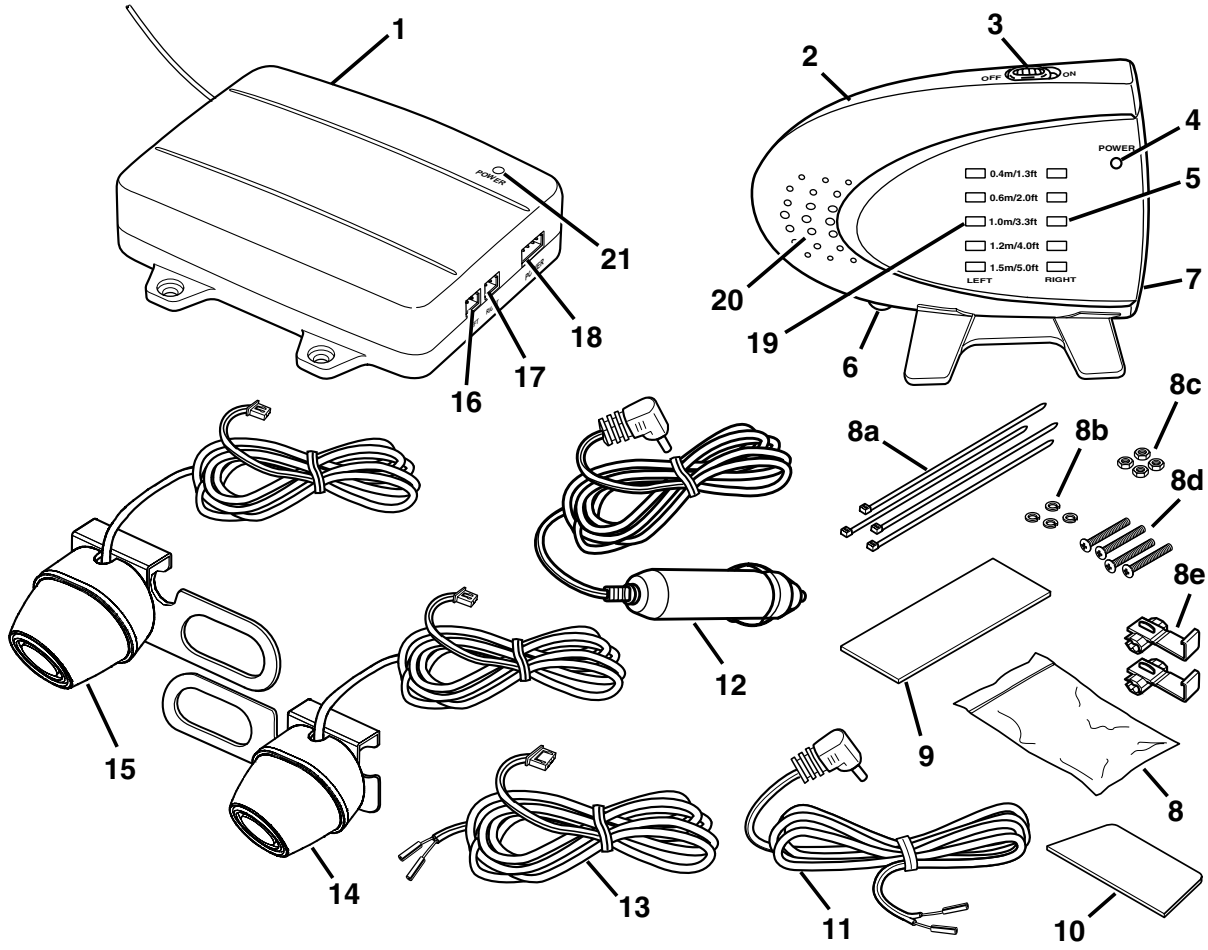
INTRODUCTION

The Wireless Parking Sensor is an automatic object warning system, used when backing up a vehicle. Information about the clearance between the vehicle and an object is displayed on the receiver inside the vehicle.

When the vehicle is driven in reverse, the rear sensors mounted on the license plate transmit a signal. If the signal detects an object, it sends a signal to the controller. These signals are analyzed by the controller's microprocessor. When the system reads ultrasonic signals that shows the obstacle is moving from one detection zone to another, it activated automatically with a three seconds RF signal This sends a signal to the receiver which identifies the clearance between the rear of the vehicle and the object. The distance is indicated with tones and LED indicators on the receiver.

FEATURES

- Detects objects or people from approximately 5 ft (1.5 m) away
- Indicates the clearance between the vehicle and the object through audible alarm and red, yellow or green LED indicator lights
- Adjustable alarm volume
- Two rear sensors for optimum object detection
- Wireless receiver can be dash-mounted for easy visibility
- Reduces the danger of harm or damage due to overseen objects
- System activates automatically when car is shifted into reverse
- Quick and easy two-wire installation



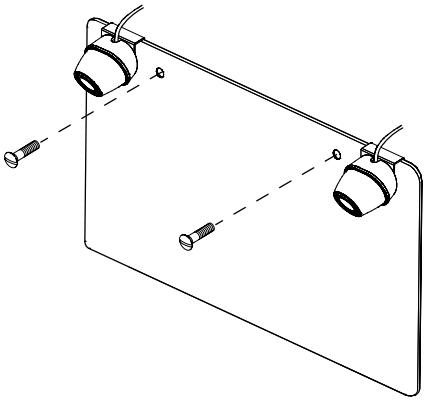
Legend

1. Controller
2. Receiver
3. ON/OFF Switch
4. Receiver Power LED
5. Right Sensor LED Lights
6. Volume Control
7. 12-volt DC Power Port
8. Hardware Bag
   - 8a) Ties
   - 8b) Lock Washers
   - 8c) Nuts
   - 8d) Screws
   - 8e) Wire Connectors
9. Controller Mounting Pad
10. Receiver Mounting Pad
11. Receiver Power Cord
12. Receiver Cigarette Lighter/Accessory Socket Power Cord
13. Controller Power Cord
14. Right Sensor
15. Left Sensor
16. Left Sensor Port
17. Right Sensor Port
18. Controller Power Port
19. Left Sensor LED Lights
20. Alarm Speaker
21. Controller Power LED

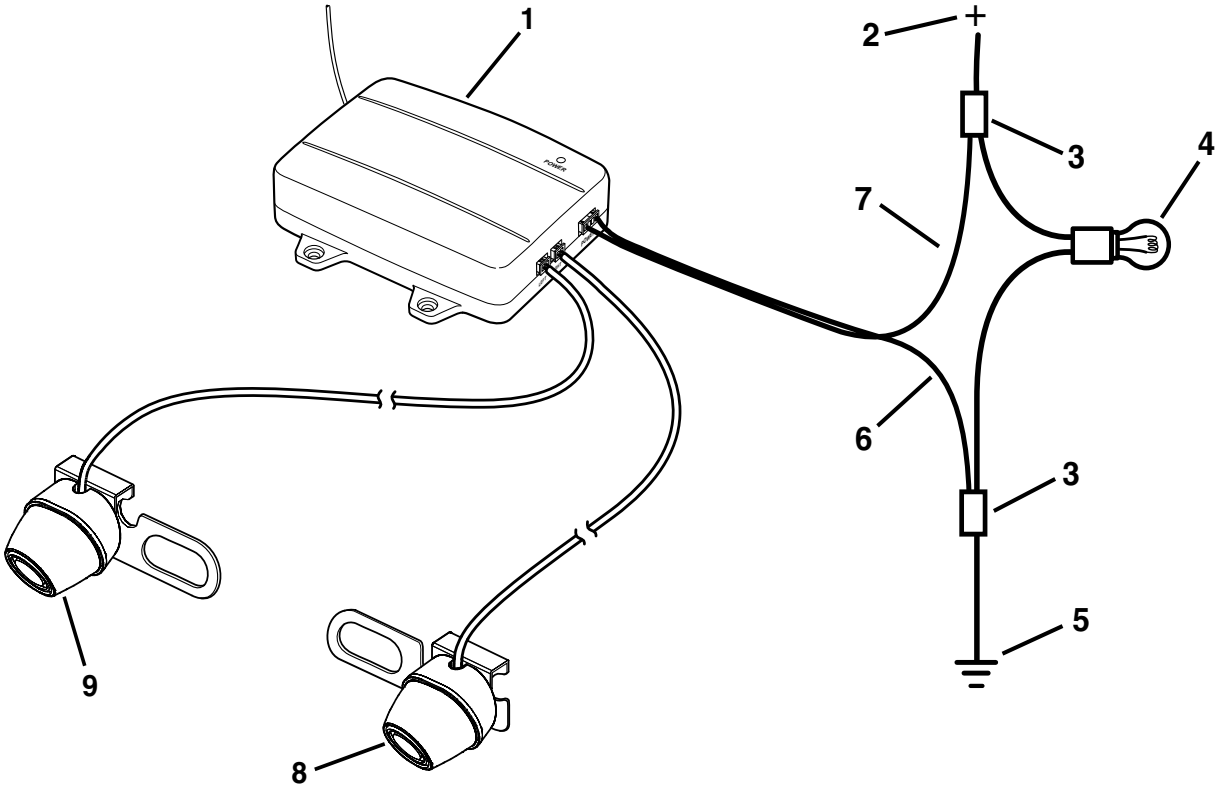
INSTALLATION

NOTICE **Some states or local governments may have regulations or laws that restrict the use of anything that might impair the clear view of a license plate. Check local laws for compliance.**

NOTICE **For the Parking Sensor to be properly installed, it must be wired into the vehicle's taillight harness. If you are not comfortable or knowledgeable with 12-volt DC wiring, have the system professionally installed.**



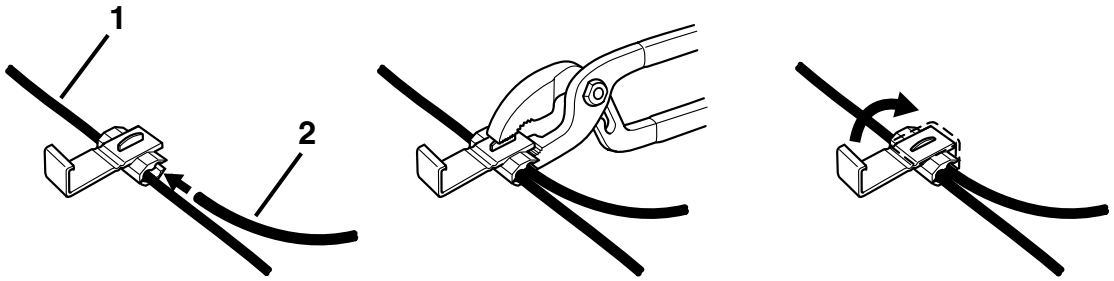
1. Remove the screws that hold the license plate to the vehicle.
2. Position the left and right sensor mounting plates behind the license plate.
3. Insert the screws through the license plate and the sensor mounting plates.
4. Install the screws to secure the sensors to the vehicle.



Legend

1. Controller
2. Positive (+) Wire from Reverse Light
3. Wire Connector
4. Reverse Light
5. Negative (-) Wire from Reverse Light
6. Negative (-) Controller Power Wire (Black)
7. Positive (+) Controller Power Wire (Red)
8. Right Sensor
9. Left Sensor

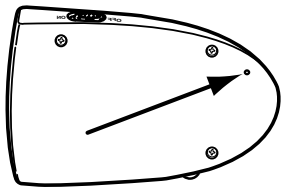
5. Determine which are the positive (+) and negative (-) wires for the reverse lights on the vehicle. You can use either the right- or left-side reverse light wires. For help locating the vehicle's reverse light circuit, contact your vehicle's manufacturer for vehicle-specific wiring diagrams.
6. Remove the vehicle's negative (-) battery cable.



Legend

1. Wire from Vehicle
2. Wire from Controller

7. Once the proper wires for the reverse lights have been determined, the controller wires must be spliced into the vehicle wires using the supplied wire connectors. If you choose to wire the controller using a different method, you must be knowledgeable in 12-volt DC electrical practices.
8. The red positive (+) wire from the controller splices into the positive (+) wire from the reverse lights and the black negative (-) wire from the controller splices into the negative (-) wire from the reverse lights.
9. Position the connector around the vehicle wire you are splicing into.
10. Slide the appropriate wire from the controller into the connector.
11. Crimp the metal clamp using a pliers to ensure a good connection and then close the lock of the wire connector. Do this for both the positive (+) and negative (-) wires from the reverse light.
12. Decide on a suitable mounting position for the controller and mount it using the screws from the hardware bag or the adhesive-backed mounting pad. It must be mounted in an area where the wires from the sensors can be plugged into it.
13. Reconnect the vehicle's negative (-) battery cable.
14. Plug the controller power wire plug and the left and right sensor plugs into the controller.
15. Find a suitable mounting position inside the vehicle for the receiver where it can be easily seen and heard, but not in a position where it can obstruct your vision when driving.
16. Use the adhesive-backed mounting pad to secure it to the desired mounting position. The angle of the receiver can be adjusted by loosening the screw on the back and tilting the receiver.
17. The receiver can be powered using the receiver cigarette lighter/accesory socket power cord or the receiver power cord. If you are going to hard wire it using the receiver power cord, you must find a switched positive (+) and negative (-) wire from the vehicle wire harness.
18. Plug the receiver power cord into the power port of the receiver.
19. If using the receiver cigarette lighter/accesory socket power cord, plug it into a 12-volt DC power port.
20. Route and secure all wires as needed.
21. When using the system for the first time, the controller and receiver must recognize each other.
22. Turn the power switch for the receiver to the ON position. The green power LED on the receiver will light.
23. With park brake still applied, turn the vehicle ignition switch to the ON position only. Do not start the vehicle.
24. Shift the vehicle to reverse to power the controller.



25. Using a small piece of wire or paper clip, push the learn button on the back of the receiver.
26. When a mutual frequency has been found, the receiver will beep twice. If the frequency is not found, a long beep will sound. If this happens, switch the receiver off and back on and push the learn button again to repeat the procedure. If a problem still persists, check the system installation.

OPERATION

1. While driving in reverse, a beep will sound and a green LED will light up when an object is 5 feet (1.5 m) away. If the object is more than 5 feet (1.5 m) away, there will be no sound and the LED will not light up.
2. As you get closer to an object, the beeping speed will increase and additional LED lights will light up.

NOTICE **When all LEDs are lit and the alarm is a constant sound, stop the vehicle immediately. Continuing in reverse may damage vehicle or wireless parking sensors.**

3. When you are 1.3 feet (0.4 m) or closer, both green, both yellow and the red LEDs will light and the beep will be a constant sound.
4. The volume can be adjusted using the volume control dial on the receiver.

Distance	Alarm	LED Lights
over 5 ft (1.5 m)	No beep	No LEDs illuminate
4.9-3.9 ft (1.5-1.2 m)	(•) beep	Green LED illuminates
3.9-3.2 ft (1.2-1.0 m)	(•) (•) beep	Green LED illuminates
3.2-2 ft (1.0-0.6 m)	(•) (•) (•) beep	Yellow LED illuminates
2-1.3 ft (0.6-0.4 m)	(•) (•) (•) (•) beep	Yellow LED illuminates
under 1.3 ft (0.4 m)	Constant sound	All LEDs illuminate

CARE AND MAINTENANCE

Storage

Store this Wireless Parking Sensor in a cool, dry area and keep it away from direct sunlight, heat, excessive humidity and dampness.

Cleaning

Do not clean or wipe the Wireless Parking Sensor with solvents or chemical materials. If necessary, remove dirt or stains using a soft cloth dampened with a mild detergent solution.

Disposal

The Wireless Parking Sensor is designed to provide years of service. The Wireless Parking Sensor should be recycled or safely disposed of at a local recycling center. Examples of places that will accept items like this are: county or municipal recycling drop-off centers or scrap metal dealers.

SPECIFICATIONS

1.	DC Input Voltage	11-16V
2.	Controller Operation Current	40 ± 10mA
3.	Receiver Operation Current	110 ± 10mA
4.	Receiver Unobstructed Range	≥ 98 ft (30 m)
5.	Alarm Volume at 11.8 in. (30 cm) Away	≥ 60 ± 10dB
6.	Frequency	433.92 ± 0.2MHz
7.	Working Temperature	-4°F to 131°F (-20°C to 55°C)

FCC INFORMATION

⚠ WARNING Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE **This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:**

- **Reorient or relocate the controller.**
- **Increase the separation between the equipment and receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is needed.**
- **Consult the dealer or an experienced radio/TV technician for help.**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of device. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate this equipment.

TROUBLESHOOTING

Problem	Situation	Action
False or no response from receiver	The sensors may not operate properly due to the following conditions (this is normal): 1. Vehicle on a steep hill 2. Thin objects behind vehicle 3. Bushes or leaves absorbing signals 4. High-power electrical wires nearby interfering with the signal	If these situations occur, the sensor may give false indications or no response. Always be aware of the surrounding areas while operating the vehicle.
	The sensors are covered with snow, mud, ice, etc.	Clean sensors.
	The sensors are mounted incorrectly or have moved	Check sensor location and alignment. Realign as necessary.
	No power to the sensor system	Ensure all wires are correctly connected to the receiver, controller, sensors and into the vehicle reverse light circuit. Check all wire connections and splices for proper connection.
	Receiver power switch is off	Turn receiver power switch on.
Receiver and/or controller power LEDs do not illuminate when the vehicle is put into reverse	Sensor system wires are loose or improperly connected	Ensure all wires are correctly connected to the receiver, controller, sensors and into the vehicle reverse light circuit. Check all wire connections and splices for proper connection.

TROUBLESHOOTING - continued

Problem	Situation	Action
Receiver always indicates an object behind the vehicle (green, yellow or red LEDs on)	The sensors are mounted incorrectly or have moved	The sensors may be located too low or pointed downward, therefore detecting the ground or other object. Check sensor location and alignment. Realign as necessary.
	The sensors are covered with snow, mud, ice, etc.	Clean sensors.
Receiver power LED (green) illuminates but does not detect any obstacles	Sensor system wires are loose or improperly connected	Ensure the sensor system wires and connectors are properly inserted into the controller's 2-pin receptacle.
Receiver does not indicate correct distances	The sensors are mounted incorrectly or have moved	Check sensor location and alignment. Realign as necessary.

LIMITED WARRANTY

Manufacturer warrants to the original consumer, or purchaser, that the PDC320 Wireless Parking Sensor System will be free from defects in material and workmanship for ninety (90) days from the date of sale to the original purchaser. Manufacturer hereby excludes and disclaims any and all other warranties, expressed or implied, beyond those warranties specified above. Manufacturer excludes any implied warranty of merchantability or fitness for a particular purpose.

IF YOUR WIRELESS PARKING SENSOR SYSTEM MALFUNCTIONS DUE TO A DEFECT IN MATERIALS AND WORKMANSHIP WITHIN THE NINETY (90) DAY WARRANTY PERIOD, MANUFACTURER WILL, AT ITS ELECTION REPAIR OR REPLACE IT. MANUFACTURER SHALL NOT, HOWEVER, BE RESPONSIBLE FOR ANY DAMAGE TO YOUR PRODUCT DUE TO ANY CAUSE OTHER THAN DEFECTS IN MATERIAL OR WORKMANSHIP, INCLUDING WITHOUT LIMITATION: FAILURE TO FOLLOW INSTRUCTIONS FOR USE; MISUSE; REPAIRS BY AN UNAUTHORIZED PERSON; MISHANDLING; MODIFICATIONS; NORMAL WEAR AND TEAR; ACCIDENT OR OVERLOAD. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. MANUFACTURER SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THIS PRODUCT OR BASED ON ANY OTHER CAUSE OR CLAIM.