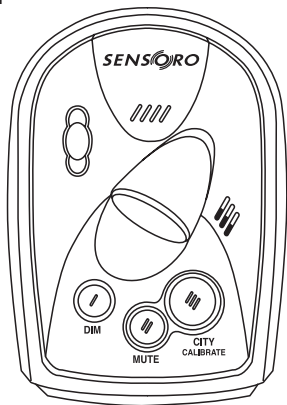


# OPERATION MANUAL

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**SENSORO**  
Z\*diac

11431 R03 1000297 R03

Radar/Laser Detector with  
Digital Vehicle Compass



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# CONGRATULATIONS

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You have acquired the SENSORO ZODIAC from PNI Corporation, the radar/laser detector with a digital vehicle compass. The SENSORO ZODIAC incorporates the same compass technology used in built-in compasses for GM, Ford, and Chrysler vehicles, to provide highly accurate and reliable compass readings in a radar/laser detector.

## Features

- Protection against all radar/laser bands
- Alert on all types of radar signals: Constant-On, Instant-On, and POP signals
- 360° laser coverage that protects you against laser guns in all directions
- Undetectable by all radar detector sensing devices used in the USA
- Patented digital compass that displays 8 cardinal points: N – NE – E – SE – S – SW – W – NW
- Dual screens: detector display at front and compass periscope display on top
- Text display backlit by LEDs
- 4 driving modes: Highway1 – Highway2 – City1 – City2
- 4-step brightness control: Bright – Dim – Dimmer – Dark
- Audio on/off (Mute off/on) selection
- Auto audio control (Auto quiet)

## PACKAGE CONTENTS

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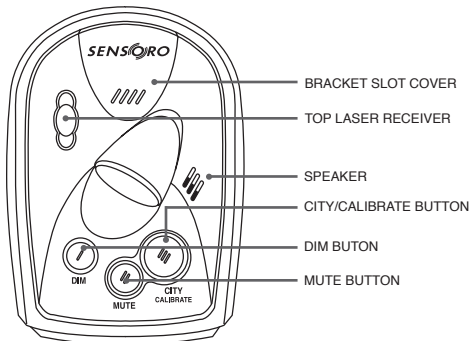
- Volume control by rotary thumb wheel
- Tutorial mode that demonstrates detector operations
- Memory retention on previous user settings
- Easy-to-use windshield and dashboard mounting
- Manual compass calibration
- 12V DC input power – use the power cord included in the package

### Package Contents

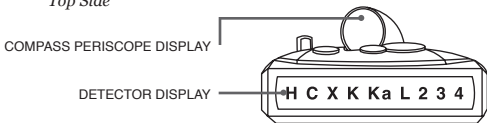
Your SENSORO ZODIAC package includes the following components:

- The SENSORO ZODIAC detector (1ea)
- Mounting bracket (1ea)
- Suction cups (3ea)
- Hook-and-loop fastener (1ea)
- Coiled 12V DC power cord (1ea)
- Operation manual (1ea)
- Quick guide (1ea)

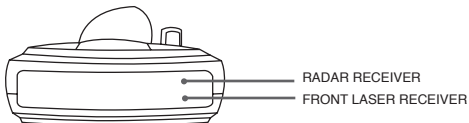
# IDENTIFYING THE PARTS



*Top Side*

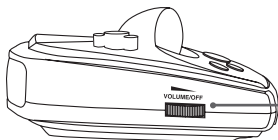


*Front Side*



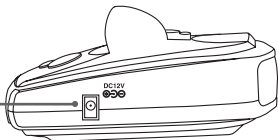
*Back Side*

## IDENTIFYING THE PARTS



POWER & VOLUME  
CONTROL THUMB WHEEL

*Left Side*



POWER CORD INPUT JACK

*Right Side*



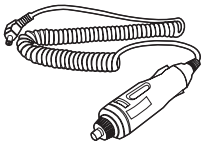
MOUNTING BRACKET



SUCTION CUPS



HOOK-AND-LOOP FASTENER



POWER CORD

# INSTALLING THE DETECTOR

## Mounting Guidelines

The SENSORO ZODIAC can be mounted on your windshield using the bracket provided.

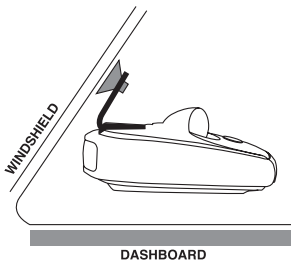
- Mount the detector on the windshield in a centered location within the driver's reach, so that the buttons can be easily accessed. Make sure that the mounted device does not obstruct the driver's view.
- Do not mount the detector behind windshield wipers, metal surfaces, ornaments, or mirrored sunscreen glass, as it will affect radar/laser signals. Tinted glass does not affect radar/laser signal reception.
- Do not mount the detector close to strong stereo speakers, as it will affect compass accuracy.
- Conceal the detector when you leave your vehicle to prevent theft and to minimize the detector's exposure to extreme temperatures, which can temporarily impair performance.

## Windshield Mounting Instructions

1. Slide the suction cups into the holes on the mounting bracket to create an assembled bracket kit.
2. Pull out the bracket slot cover from the detector.
3. Place the assembled bracket kit onto the detector where the bracket slot cover was removed.
4. Press the bracket base firmly against the windshield until the suction cups securely take hold.

## INSTALLING THE DETECTOR

5. Bend the angle of the mounting bracket if necessary, to adjust for best viewing and detection angle.
6. Plug the small connector of the power cord into the 12V DC power input jack located on the side of the detector.
7. Plug the power cord adapter into the lighter socket in your vehicle.



### Dashboard Mounting Instructions

1. Select a clean, dry area on your dashboard that is relatively level. Adhere one part of the enclosed hook-and-loop fastener to this area and the other part to the bottom of the unit.
2. Fasten the unit to the area by placing the hook-and-loop pieces together.



## OPERATION

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### Power & Volume Control

Plug the adapter of the provided 12V DC power cord into the lighter of your vehicle, and plug the small connector at the other end of the 12V DC power cord into the power jack of your detector. This will send power to the detector when your vehicle is running. To turn on the detector, rotate the wheel controller (located on the side of the detector) until you hear it click. To turn off the detector, rotate the wheel controller in the opposite direction until it clicks again. You can also use the controller to adjust the volume level by turning it up or down within the range that it does not click.

- **Opening Diagnosis:** The detector performs a single loop of checking and demonstrating its audio and visual alert capability for about 3-5 seconds each time it is powered on.

### Brightness Control

Press the DIM button repeatedly to toggle between 4 different brightness levels. The brightness options are: Bright – Dim – Dimmer – Dark. Dark is not the complete blackout option. The factory default mode is Bright. Dim is engaged with one beep, Dimmer with two, Dark with three and Bright is reset with four beeps.

When a signal is detected, alerts are displayed in Bright, regardless of the brightness level that you've selected. The display returns to your selected setting following the alert.

### Audio On/Off Selection

Press the MUTE button repeatedly to toggle between Mute On (Audio Off) and Mute Off (Audio On). Mute On is set with one beep and Mute Off with two. Mute On/Off can be used when you manually turn the audio alert off or restored while the detector is reporting alerts. The factory default mode is Mute Off.

Mute On will be automatically reset to Mute Off when you turn the detector off. Mute On does not remain in the detector's memory.

- **Auto Audio Control:** Auto Audio will have the detector report with reduced audio alarms for continuously detected alerts. When a signal is constantly reported for more than 5 seconds, the detector will gradually reduce the audio level in the following 5 seconds to the ambient noise level in your vehicle. The reduced audio level will continue when new alerts are reported if the new alerts are detected within 60 seconds from the moment the last alert has disappeared.

## Highway & City Mode Selection

Press the CITY button repeatedly (for less than 2 seconds each time) to toggle through 4 different radar band selectivity & sensitivity modes. The modes are: Highway1 (H1) - Highway2 (H2) - City1 (C1) - City2 (C2). The factory default mode is H1. H2 is activated with one beep, C1 with two, C2 with three, and H1 is reset with four beeps.

The detector detects all radar band (X, K, Ka) signals at H1 and C1, while it detects only K and Ka band signals at H2 and C2. Also, it detects with full sensitivities in both highway modes and with reduced sensitivities in both city modes. It detects laser signals at all times regardless of these highway and city modes.

- H1 detects X, K, and Ka signals with full sensitivities.

**H**

- H2 detects only K and Ka signals with full sensitivities.

**H**

**2**

- C1 detects X, K, and Ka signals with reduced sensitivities.

**C**

- C2 detects only K and Ka signals with reduced sensitivities.

**C**

**2**

### Compass Calibration

Press and hold the CALIBRATE button (= CITY button) for more than 2 seconds to access compass calibration mode. The calibration mode starts with one beep. The detector flashes the 4 compass LEDs one after another (clockwise) until the calibration is completed.

Perform the calibration on a level surface, following these steps:

- Turn the detector on. (See Power & Volume Control.)
- Mount the detector on the windshield or the dashboard in your vehicle. (See INSTALLING THE DETECTOR.)
- Press and hold the CALIBRATE button (= CITY button) until you see the detector flashing the compass LEDs clockwise, one after another.
- Drive your vehicle in two circles. The size of the circles and the direction that you drive does not matter. The circles do not need to be perfect circles but must be completed in the same direction. Each circle should take a minimum of 20 seconds but no more than 1 minute to complete.
- Press the CALIBRATE button (= CITY button). The detector will end the compass calibration in two beeps and with the 4 compass LEDs flashing twice altogether. The compass screen will indicate which direction your vehicle is pointing. Calibration is now complete.

## OPERATION

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While the detector is calibrating, the front screen will remain completely blacked out.

- **When to Calibrate:** The compass must be calibrated:
  - When the detector is used for the first time in a vehicle, and
  - When the detector is mounted in a new location.
- **Compass Display:** The compass periscope displays 8 cardinal points.



NORTH



NORTHEAST



EAST



SOUTHEAST



SOUTH



SOUTHWEST



WEST



NORTHWEST

## Tutorial Mode

Turn the detector on while holding the CITY button and the detector will demonstrate how it operates when each radar and laser band signal is detected. The detector enters tutorial mode without beep sound and demonstrates various alerts with the corresponding audio tones and levels.

- X band Constant-On signal detected operation



- X band Instant-On or POP signal detected operation



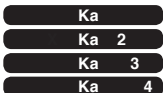
- K band Constant-On signal detected operation



- K band Instant-On or POP signal detected operation



- Ka band Constant-On signal detected operation



## OPERATION

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- Ka band Instant-On or POP signal detected operation

**Ka 2 3 4**

- Laser band detected operation

**L 2 3 4**

- All LEDs on

**H C X K Ka L 2 3 4**

Press any button to exit the all-LEDs-on status with one beep sound, which is the end of the tutorial mode. The detector automatically enters detection mode and begins detecting signals. The detector uses the same audio and visual alerts as used in the tutorial mode when it reports real alerts.

- **Signal Strength Meters:** The numbered LEDs are called signal strength meters when they are displayed together with a radar band's LEDs (X, K, or Ka) to indicate the strength of a detected signal. The higher the number, the stronger the signal. When the numbered LEDs are used together with H or C LED, they demonstrate the level of the highway or city mode you've set.

## CARE AND MAINTENANCE

Here are some tips to help you care for your SENSORO ZODIAC:

- To deter theft, remove the detector from your windshield when you leave your vehicle.
- Avoid extended exposure to direct sunlight. Remove your detector from your windshield when your vehicle is parked for an extended period of time. On hot days, the temperature inside your vehicle can reach levels that could damage your detector.
- Do not expose the detector to rain, moisture, spray cleaners, or liquids that could damage the internal circuitry of the detector.

### Fuse Replacement

The lighter socket adapter of the power cord has a replaceable 2-Amp SAG fuse located below the silver tip. To check or replace the fuse, slowly and carefully unscrew the tip of the plug, making sure the spring and silver tip located inside the plug do not fly out when you remove the cap. Check fuse and replace if necessary.

Your SENSORO ZODIAC is designed for reliable service. If you encounter a problem, however, please refer to the Troubleshooting section of this manual before making a service call.



## TROUBLESHOOTING

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The SENSORO ZODIAC will not power up.

- Make sure that the Power & Volume control thumb wheel is turned on.
- Check all power cord connections.
- Check the fuse in the lighter socket adapter and replace if necessary.
- Check lighter socket. Clean if dirty.
- Check your vehicle's fuse panel (refer to your vehicle's manual).

The SENSORO ZODIAC did not alert when passing an officer.

- Not all police cars have radar/laser, or the radar/laser may not be in use at that time you passed the officer

The SENSORO ZODIAC signal is weak.

- Set the detector to H1 or H2 mode.
- Make sure the detector is level to the road.
- Make sure the radar window or the top laser receiver is not obstructed. Move the detector if necessary.

The SENSORO ZODIAC beeps over bumps or when using vehicle's equipment or electrical accessories, such as brakes, windshield wipers, power windows, etc.

- Check power cord for loose connections.
- Vehicle has electrical noise. Install a filter capacitor (470 $\mu$ F; 35-volt, or larger capacitance value) on the back of the lighter socket across the power connection.

# SPECIFICATIONS

## Radar

- Receiver type: Dual conversion superheterodyne
- Antenna type: Linear polarized, self-contained
- Detector type: Scanning frequency discriminator
- Frequency operation:
  - X band; 10.525 GHz  $\pm$ 50 MHz
  - K band; 24.150 GHz  $\pm$ 100 MHz
  - Ka band (superwide); 34.700 GHz  $\pm$ 1,300 MHz
  - Safety radar; 24.100 GHz

## Laser

- Receiver type: Pulsed laser signal receiver
- Detector type: Digital signal processor pulse width discriminator
- Optical sensor: Dual convex condenser lens and high speed photo diode detector

## Compass

- Accuracy: 5 degrees
- Resolution: 45 degrees

## General

- Temperature range: -4°F to 140°F (-20°C to 60°C)
- Power requirements: 12V to 16V DC, 350 mA, negative ground
- Dimensions: 1.5" H x 2.85" W x 4.2" L
- Weight: 3.5 ounces

Specifications are typical, individual detectors may vary. Specifications are subject to change without notice. Performance may vary with driving behaviors and driving environments. U.S. patents apply: #6,549,145. Other patents pending.

## SERVICE AND REPLACEMENT

For fastest service, contact or return your SENSORO ZODIAC to the place of purchase. If you wish to return the detector for replacement or repair to PNI Corporation, please use the following process:

1. Products returned to PNI must be pre-authorized by PNI with an RMA (return material authorization) number marked on the outside of the package. Obtain an RMA number by contacting PNI Corporation:
  - By phone: 1 (888) 422-6672 (toll-free in the U.S. only) or at (707) 566-2260
  - By fax: (707) 566-2261
  - By e-mail: sales@pnicorp.com
2. Provide proof of purchase, such as a mechanical reproduction or carbon copy of a sales receipt. If you send your original receipt, it will not be returned. Proof of purchase must show printed date of purchase, model number, and place of purchase. Once you have acquired an RMA number, pack the detector securely to prevent damage in transit. If possible, use the original packing material and box. Be sure to send the entire product.
3. Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS), Roadway Parcel Service (RPS), or First Class Mail to avoid loss in transit.
4. With the issued RMA number written on the outside

## SERVICE AND REPLACEMENT

of your package, send your proof of purchase and description of the problem to the following address:

**PNI Corporation**  
**133 Aviation Boulevard, Suite 101**  
**Santa Rosa, CA 95403-1077**

5. Type or print your name and address where the replacement should be delivered. After receipt of your documents and detector, a replacement detector will be sent to you. Please allow two to three weeks from receipt of your returned product to delivery of your replacement.



ZODIAC • QJ3-IFS-11428

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.

In addition, any changes or modifications to this product, which are not expressly approved by PNI Corporation in writing, could void the user's authority to operate this product.

# WARRANTY INFORMATION

## LIMITED WARRANTIES; LIMITATION OF LIABILITY for Sensoro radar detectors, model Zodiac

PNI Corporation (“PNI”) manufactures its products, which include accessories, from parts and components that are new or equivalent to new in performance and expressly warrants to the original retail purchaser who is also the original user that this product will be free of defects in workmanship and materials for one (1) year from the date of purchase. Implied warranties are limited to such person for the same period.

If the product is found by PNI to be defective, PNI's entire liability and your exclusive remedy for breach of warranty, express or implied, shall be that PNI will repair or replace the product and return the product or its replacement to you at no charge, provided that you ship the product to PNI at your expense with a description of the defect and subject to the other conditions of this warranty. Should the product prove to be irreparable, PNI may substitute an equivalent product of the same or similar style and of a value not in excess of the original purchase price of your product. PNI warrants the repaired or replacement product to be free from defects in material and workmanship for the balance of the original warranty period, extended by the time period from your shipment to PNI for repair or replacement until the repaired or replaced product was received by you.

This warranty will be void if the serial number or other identification marks on the product or its accessories have been defaced, damaged or removed. This warranty does not cover wear and tear due to normal use, or damage to the product as the result of improper usage, neglect of care, alteration, accident or unauthorized repair, nor does this warranty apply to the battery necessary to operate the product.

This warranty is extended only to the original retail purchaser who is also the original user and may not be transferred or assigned to

## WARRANTY INFORMATION

subsequent owners. In order to validate your warranty, you must provide proof of purchase acceptable to PNI, together with the product shipped for warranty repair/replacement. Products returned to PNI must be pre-authorized by PNI with an RMA (return material authorization) number marked on the outside of the package. Please refer to the Service and Replacement section for PNI Corporation contact information.

THE FOREGOING WARRANTY IS GIVEN IN LIEU OF AND PNI DISCLAIMS ALL OTHER EXPRESS WARRANTIES OR REPRESENTATIONS IN FACT OR IN LAW WITH RESPECT TO THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OR REPRESENTATION THAT USE OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE.

Except for the breach of warranty remedies set forth herein, or for personal injury, PNI shall have no liability for any indirect or speculative damages (including, but not limited to, consequential, incidental, punitive and special damages) relating to the use of or inability to use this product, whether arising out of contract, negligence, tort, or under any warranty theory, or for infringement of any other party's intellectual property rights, irrespective of whether PNI had advance notice of the possibility of any such damages, including, but not limited to, loss of use, revenue or profit. In no event shall PNI's total liability for all claims regarding the product exceed the price paid for the product. PNI neither assumes nor authorizes anyone to assume for it any other liabilities.

Some states and provinces do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary by state or province.