



OPERATION MANUAL

WAYFINDER V700

DIGITAL VEHICLE COMPASS



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Making Ordinary Products Extraordinary

CONGRATULATIONS!

You have acquired one of the most sophisticated compasses available for vehicle or hand use. The Wayfinder V700 incorporates patented magnetic sensor technology that was developed to display the most accurate electronic compass headings for the U.S. military.

Compass features

- **ACCURATE** in all types of vehicles: cars, trucks, SUVs, or RVs.
- **ADJUSTABLE CRADLE** easily mounts to any windshield with heavy-duty suction cups (included).
- **COMPASS UNIT** easily slides off its cradle for external use as hand compass.
- **FOR HIKING OR DRIVING** can be used in two different magnetic field environments (inside or outside the vehicle) without having to recalibrate every time you switch from one environment to the other.
- **3-MODE COMPASS** heading is displayed with a compass rose, 8 cardinal points (N, NE, etc.) and 5° numeric digits.
- **ELECTRONIC CALIBRATION** no manual adjustments are needed. Just hold a

COMPASS FEATURES

button and turn a circle. No need to repeat until the batteries are removed or the compass is moved elsewhere.

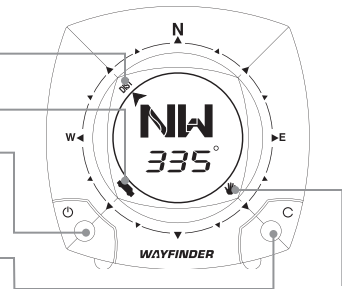
- **HOLOGRAPHIC LCD** improves brightness and contrast while removing glare.
- **BRIGHT BACKLIGHT** illuminates the LCD for easy viewing day or night.
- **“SMART” AUTO SHUT-OFF** shuts off automatically to save battery power when no magnetic field change is detected for 10 minutes.
- **MAGNETIC DISTORTION MESSAGE** advises when magnetic interference from outside

sources affects the accuracy of the compass.

- **BATTERY OR 12-VOLT POWER** operates on 2 “AAA” batteries (included) for up to 200 hours or with power cord (included).
- **WIDE TEMPERATURE RANGE** -14°F to 140°F operating temperature; -40°F to 160°F storage temperature.

DISPLAY AND BUTTONS

- Distortion Icon
- Vehicle Mode Icon
- On/Off Button**
Press to turn unit and backlight on;
Hold to turn unit and backlight off
- Calibrate Button**
Press to turn unit and backlight on;
Hold to carry out calibration



Hand Mode Icon

DISPLAY AND BUTTONS

Distortion Icon

The Wayfinder V700 detects when outside magnetic interference compromises accuracy by displaying the “DIST” icon on the LCD. Distortion occurs when a significant change in the surrounding magnetic fields occurs, such as driving underneath an overpass or over a bridge.

Vehicle Mode Icon

Vehicle Mode displays car icon in bottom left of display when the unit is positioned vertically in its cradle in automatic switch mode, or when the unit is manually placed and locked into Vehicle Mode (see page 9).

Important: In Vehicle Mode, the compass rose arrow points in the direction of travel.

Hand Mode Icon

Hand Mode displays hand icon in bottom right of display when the unit is held horizontally in automatic switch mode, or when the unit is manually placed and locked into Hand Mode (see page 9).

Important: In Hand Mode, the compass rose arrow points in the direction of NORTH.

INSTALLING OR REPLACING BATTERIES



The compass uses two “AAA” size batteries (provided).

Installing the batteries

Remove the Wayfinder V700 from its cradle and place it on a flat surface with the LCD facing down and the back of the compass facing up.

Slide open the battery cover on the back of the compass housing by gently depressing the triangular mark near the base with your thumb and sliding it outward.

Install the two batteries, following the polarity instructions inside the battery compartment.

Replace battery cover. The compass will go through a short self test pattern before displaying heading information .



INSTALLING OR REPLACING BATTERIES



Notes

- If nothing happens, or if the display freezes, remove the batteries, wait approximately one minute, and then reinsert the batteries.
- Every time the batteries are removed or replaced, you must recalibrate the compass.
- The compass has an auto-shut off feature. When no magnetic field (heading) change has been detected for 10 minutes, the compass automatically switches off. To turn the power back on, press any button.



MOUNTING THE COMPASS

Mounting guidelines

- Choose a place on the windshield that will not obstruct the view of the driver and is within easy reach.
- Mount the compass on the windshield.
- For maximum accuracy, locate the compass at least 5" (12 cm) away from stereo speakers.
- Once installed, the face of the compass must face the rear of the vehicle. The compass can be adjusted up to 20° from the vertical and remain accurate.

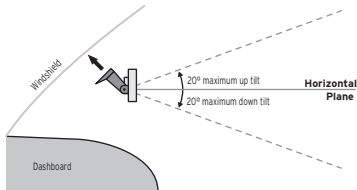
Ensure the suction cups (included) face outward from the cradle and press the heads into the base holes through the larger half of the hole. Then slide them outward until they fit snugly against the outside edge.

Ensure that the selected section of windshield is clean and dry, then press the cradle base firmly against it until the suction cups adhere securely. A thin layer of petroleum jelly or similar grease on the surface of the cups will improve adhesion.

Adjust the angle of the cradle so the face of the compass points toward the rear of

MOUNTING THE COMPASS

the vehicle. If necessary, loosen the screws with a small Phillips screwdriver, adjust up or down as required, and tighten the screw. You are now ready to calibrate your compass. Calibration allows the compass to distinguish the earth's magnetic field from the one generated by your vehicle and consequently provide accurate heading information.



CALIBRATION

When to calibrate:

- Before first use in vehicle or in hand mode. If you plan to use both modes you must calibrate it in each mode
- If you change the location of your compass in your vehicle
- When the “DIST” icon displays continuously
- When the batteries are removed or replaced

Calibration guidelines:

Mount the unit on the windshield where you plan to use it before starting calibration. Switch the unit on by pressing any button.



If the unit is in a vertical position, it is in vehicle mode and displays a car icon in the

bottom left corner. If it is horizontal, it is in hand mode and displays a hand icon in the bottom right corner.


Mode switching is automatic when the compass angle reaches about 45°. The unit can also be manually placed and locked into vehicle or hand mode regardless of its position angle. To do so, press and hold both buttons until the unit switches to vehicle mode (car icon displays regardless of angle). Press and hold both buttons again until the unit switches to hand mode (hand icon displays regardless of angle). The unit reverts to automatic mode switching when turned off then back on.

CALIBRATION

Calibrating the compass (vehicle mode)

Hold the “CAL ” button. The display will show “Hold to CAL”. After 2 seconds the display will flash all elements of the display and the message “Press CAL” will appear. This is asking for confirmation to start the calibration process. Pressing the “On/Off ” button or changing the mode (by changing angle by more than 45°) at this stage will cancel calibration and the compass will revert to normal mode.



Press the CAL button briefly. “TURN” will appear beneath the top arrow element and “Press CAL when done” will appear in the



center of the display. Drive your vehicle in a single 360° circle. The size and direction of the circle do not matter but the circle should take 15 to 30 seconds. As you turn, the arrow elements will appear in a clockwise pattern. When you have turned a complete circle, press “CAL ” again and the compass will display “CAL done” for 2 seconds before reverting to the standard directional display. You have now calibrated the Wayfinder V700 for vehicle mode.

CALIBRATION

Calibrating the compass (hand mode)

Place the Wayfinder V700 on its back (face up) on a flat surface. Avoid magnetic surfaces such as steel tables.

Hold the “CAL ” button. The display will show “Hold to CAL.” After 2 seconds the display will flash all segments of the rose and the message “Press CAL” will appear. This is asking for confirmation to start the calibration process. Pressing the “On/Off ” button or changing the mode (by changing angle by more than 45°) at this stage will cancel calibration, and the compass will revert to normal mode.

Press the “CAL ” button briefly. “TURN” will appear beneath the top arrow element and “Press CAL when done” will appear in the center of the display. Rotate the compass in a single 360° circle. The direction of the circle does not matter, but the whole process should take 15 to 30 seconds. Press “CAL ” again and the compass will display “CAL done” for 2 seconds before reverting to the standard directional display. You have now calibrated your compass for hand mode.

You can safely replace the Wayfinder V700 in its holding bracket. In the vertical position it will remember its vehicle calibration details.

CALIBRATION

The compass uses an electro-luminescent backlight to illuminate the display, making it visible at night. Pressing any button turns the backlight on or off.

Battery Mode

If your compass is in battery mode and the light is switched on, it will automatically switch off after 30 seconds to conserve the battery.

12 volt Mode

If your compass is in 12-volt mode (with the power lead connected), the light will automatically turn on when you switch

the compass on and will remain on until the compass is turned off (manually or automatically). If you disconnect the 12-volt power cord to the unit, the light will automatically switch off after 30 seconds.

FREQUENTLY ASKED QUESTIONS

How does the Wayfinder V700 work?

The Wayfinder V700 uses a patented magnetic sensor technology that was developed by PNI Corporation for the U.S. military. This technology is called *magneto-inductive* and is the greatest advance in compass technology in the last 60 years. The earth generates a magnetic field, and compass heading is determined through a mathematical calculation. The magneto-inductive sensor technology can electronically distinguish the difference between the earth's magnetic field and your vehicle's magnetic field. The unit's microprocessor electronically subtracts your

vehicle's magnetic field from the overall reading and displays highly accurate compass readings. Magneto-inductive sensor technology has many advantages over other technologies including better performance, lower power consumption, and economy. These advantages have made magneto-inductive sensor technology the choice for many high profile compass applications including Chrysler, GM, and Ford automobiles, Polaris jet-skis, Bayliner boats, and Timex watches.

FREQUENTLY ASKED QUESTIONS

Where can I use the compass?

The Wayfinder V700 can be used in any type of vehicle including cars, trucks, vans, SUVs, and RVs or outside a vehicle as a hand compass.

How do I read the display?

The Wayfinder V700 displays direction in 3 different formats: (1) compass rose, (2) cardinal points (N, NE, etc.) and (3) numeric digits (325°, 330°, etc.) The 8 cardinal points of a compass (N, NE, E, SE, S, SW, W, NW) give you a general sense of direction. The numeric digits show a more precise direction down to the nearest five degrees.

What is calibration, and why is it necessary?

Calibration is the process whereby the Wayfinder V700 distinguishes the earth's magnetic field from externally generated magnetic fields such as those generated by a vehicle's steel body or electronics. Without calibration, the unit believes the entire magnetic field surrounding it is from the earth and consequently displays inaccurate compass readings.

FREQUENTLY ASKED QUESTIONS

When do I need to calibrate the compass?

The Wayfinder V700 needs to be calibrated when used for the first time, when used in an environment with a different magnetic field, or when the batteries are removed or replaced. Using the Wayfinder V700 in a different environment includes moving it to a new position in the same vehicle, installing it in a different vehicle, or when there has been a change to your vehicle such as installation of new electrical equipment such as a stereo or CD. The Wayfinder V700 must be hand calibrated (see page 11) before first use outside the vehicle.

What are the benefits of Vehicle Mode and Hand Mode?

The Wayfinder V700 includes an additional electronic sensor which allows it to store two calibration settings: one for use when the unit is mounted vertically in its bracket (vehicle mode), the other for use outside the vehicle in a horizontal position (hand mode). This allows you to use the compass in two different magnetic fields (inside or outside the vehicle) without needing to recalibrate each time you change environments.

FREQUENTLY ASKED QUESTIONS

What happens if the batteries are removed?

Removing the batteries from the Wayfinder V700 erases all the information stored in memory including the calibration information. When you replace the batteries, you must recalibrate the unit.

What is magnetic distortion?

Many things, such as metal objects and electronics equipment, generate external magnetic fields that can render a compass inaccurate when in close proximity. The Wayfinder V700 senses when there has been a significant change in magnetic fields and displays the “DIST” message in the top left

corner of the display. This may occur when driving over a bridge, under an overpass, over railroad tracks, or within close proximity to something with a strong magnetic field such as power lines. Once the vehicle has moved away from the source of interference, the compass will be accurate again. If the “DIST” message is continuously displayed, it is usually a sign that there has been a significant change in magnetic fields and recalibration is necessary.

Where can I get another copy of this operation manual?

Copies are available in PDF format on our web site www.pnicorp.com.

FREQUENTLY ASKED QUESTIONS

If I have a problem with my unit, what should I do?

First call or e-mail our technical service department at the addresses below. The phone lines are open 7 a.m. to 4 p.m. PST (8 hours behind GMT). A trained representative will walk you through the most common problems. Usually they can solve about 90% of problems over the phone or by e-mail. If this does not solve your problem, we recommend you contact or return your compass to the place of purchase for the fastest service.

If you wish to return the unit for replacement

or repair to PNI, please follow the following procedures:

1. Obtain a return merchandise authorization (RMA) number by contacting PNI:
 - By phone: (888) 422-6672 (toll-free within the U.S. only) or at (707) 566-2260
 - By fax: (707) 566-2261
 - By e-mail:
CustomerService@pnicorp.com
2. Provide a proof of purchase, such as a photocopy or carbon copy of a sales receipt. If you send your original receipt,

FREQUENTLY ASKED QUESTIONS

it cannot 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 unit 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. Write the RMA number you received on the outside of your package, include your proof of purchase and a description of the problem and send to:

PNI Corporation
5464 Skylane Boulevard, Suite A
Santa Rosa, CA 95403-1084

Type or print your name and address where the replacement should be delivered. After receipt of your documents and unit, a replacement unit will be sent to you. Please allow 2 to 3 weeks from receipt of your returned product for delivery of your replacement.

LIMITED WARRANTY; LIMITATION OF LIABILITY



PNI Corporation manufactures its products from parts and components that are new or equivalent to new in performance and warrants to the original user that this product will be free of defects in workmanship and materials for one (1) year from the date of purchase. 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.

If the product is found by PNI to be defective and you have provided proof of purchase acceptable to PNI, PNI's entire liability and your

exclusive remedy for breach of warranty shall be that PNI, at its discretion, will replace or repair the product and return the replacement or repaired product to you at no charge, provided that you ship the product to PNI at your expense. PNI warrants the repaired or replaced product to be free from defects in material and workmanship for a period of the greater of: (i) ninety (90) days from the date it is shipped to you; or (ii) the period of time remaining on the original one (1) year warranty.

THE FOREGOING WARRANTY IS GIVEN IN LIEU OF AND PNI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS,

LIMITED WARRANTY; LIMITATION OF LIABILITY



EXPRESSED OR IMPLIED, IN FACT OR IN LAW, WITH RESPECT TO THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, (1) THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, OR (2) THAT USE OF THE PRODUCT WILL BE UNINTERRUPTED AND ERROR FREE.

PNI shall have no liability for any indirect or speculative damages (including, but not limited to, consequential, incidental, 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 do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

NOTES



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www.pnicorp.com

PN 11396 R02 1000259 VG2-01