



# Earthmate® PN-Series

## User Manual

Updated for 2.6 Firmware



GPS for Serious Outdoor Adventures

## **Earthmate® PN-Series Accessories**

We offer a variety of products designed to carry, securely mount, and power your Earthmate GPS. You can also inexpensively subscribe for a year's worth of supplemental data downloads, including color aerial imagery, USGS 7.5-minute topographic quads, and NOAA nautical charts.

### **Also Available from DeLorme**

DeLorme is a leading provider of mapping software for both consumer and professional markets. Our Street Atlas USA® software titles deliver intelligent mapping, routing, and GPS navigation solutions for laptop PCs and PDAs. XMap® is a three-tiered GIS software suite that integrates advanced geospatial data management into DeLorme's core GPS mapping framework.

We also publish the Atlas & Gazetteer™ series of topographic map books for individual states.

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# Getting Started

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## PN-Series

This manual is for use with DeLorme Earthmate® PN-30 and PN-40 GPS devices.

## How to Use this Manual

For more information about the buttons on the PN-Series GPS, see *Using the Buttons* on page 6.

When the manual instructs you to do something, use these actions on the device:

- ▶ To select an item on the screen, such as a field, check box, button, drop-down list, menu item, or search result—use the arrow keypad to move/scroll to the item to highlight it and press **ENTER**.
  - » To edit alphanumeric fields, use the on-screen keyboard. See *Using the Keyboard* on page 8.
  - » To edit numeric fields, use the up/down arrows on the arrow keypad to increase/decrease numbers and change other information. Use the left/right arrows to move the selection.
  - » To clear a selected check box, press **ENTER**.
- ▶ Once you make a selection or finish editing information, press **ENTER** to complete the action.

- ▶ To exit a page or screen, press **QUIT**.
- ▶ To complete a series of steps—an arrow ( > ) indicates the sequence. Note that the sequences do not include **ENTER** and **QUIT** button presses described above.

**Example** To change your battery type, go to **MENU > Device Setup > System > Battery Type**. In this case, you would press the **MENU** button; use the arrow keypad to highlight **Device Setup** and press **ENTER**; use the arrow keypad to highlight **System** and press **ENTER**; use the arrow keypad to highlight **Battery Type** and press **ENTER** to open the drop-down list; use the arrow keypad to highlight the new battery type and press **ENTER**; and then press **QUIT** to exit the Device Setup Page.

## Installing the Batteries and SD Card

You can power your PN-Series GPS with two AA batteries (NiMH, alkaline, or lithium) or a DeLorme rechargeable Lithium-ion (Li-ion) battery. The PN-Series GPS has a real-time clock that requires power even when the device is turned off. The SD card slot is underneath the batteries inside the battery compartment.

## To install batteries and the SD card

1. Unscrew the D-rings on the back of the device until you can remove the battery cover.
2. Optional. To insert an SD card, gently press down the SD card latch, insert the card in the slot, and press down the slot to close the latch. **Note** Do not lift the SD card latch as this could cause damage.
3. Insert two AA batteries or a DeLorme Li-ion rechargeable battery according to the polarity symbols inside the battery compartment. Be sure to insert batteries correctly.
4. Position the battery cover on the device and screw in the D-rings.
5. Go to **MENU > Device Setup > System > Battery Type** and ensure the correct battery type is selected. This ensures that the battery indicator displays the correct amount of battery life remaining.

## To view the battery indicator

The battery indicator is on the Satellites Page; for more information, see *Battery Indicator* on page 14.

## To charge a DeLorme Li-ion battery in the PN-Series GPS

1. Install the battery in the device.
2. Connect the device to your computer with the USB cable.

You can leave the device fully powered on.


OR

You can set it to charging mode; with the device powered off, quickly press **Power** once. The screen displays "Charging" or "Charge Complete."

## To improve battery life

- ▶ Automatically turn off the backlight after 15 seconds; go to **MENU > Device Setup > Display > Backlight Timer > 15 sec.**
- ▶ Use the power saving option; go to **MENU > Device Setup > System > GPS Settings > Power Saving.**
- ▶ Disable the GPS when inside. Go to **MENU > Device Setup > System > GPS Settings > Disable GPS** OR from the Satellites Page, go to **MENU > Disable GPS.**
- ▶ Use batteries with higher milliamp-hour (mAh) ratings (such as Duracell Ultras, Energizer E2s, etc.).

## Turning the PN-Series GPS On or Off

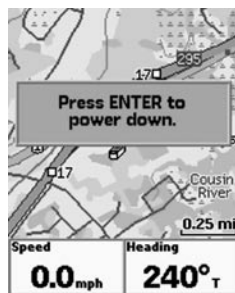
The **Power** button  is at the bottom right corner of the button area.

## To turn on the PN-Series GPS

Press and hold **Power** until you see the Welcome screen.

## To turn off the PN-Series GPS

Press **Power** and then press **ENTER** when you see the confirmation message.



Turn off the device

## To view or hide Demo Mode

When you first turn on the PN-Series GPS, it opens in Demo Mode.

- ▶ To view the demo, follow the on-screen instructions.
- ▶ To exit the demo, press **QUIT**.
- ▶ To disable Demo Mode—from the first screen, press **ENTER** to clear the **Show at Startup** check box.
- ▶ To restore Demo Mode, go to **MENU > Device Setup > System > GPS Settings > Demo Mode**.

**Note** You must disable Demo Mode if you want to view the Connect to Computer screen when you connect your device to your computer. For more information about con-

necting your device to your computer, see *Connecting to a Computer* on page 72.

## To reset the PN-Series GPS

To reset the PN-Series GPS when it is on, press and hold **Power** for seven seconds. You can also remove the batteries and then reinstall them.

## Data Management

The PN-Series GPS stores waypoints, geocaches, tracks, routes, and the base map data in its internal memory. You can save maps in the device's internal memory or on a removable memory card (SD/SDHC/MMC) located under the battery compartment.

To view and manage memory information, go to **MENU > Device Setup > System > Memory Use**.

## Detailed Map Data

Your PN-Series GPS comes with a base map showing overview-level worldwide coverage, as well as U.S. interstates and routes, state routes, and major roads. While this provides a great view of a large area, chances are that you will want a detailed view of a smaller area for hiking, geocaching, and other activities.

You can transfer detailed maps and map packages to the PN-Series GPS using:

- ▶ **PN-Series detailed map DVDs**—Included with your device are DVDs with detailed pre-formatted Topo USA® data of the entire U.S. Insert the DVD for your area of interest in your computer's DVD drive and follow the on-screen instructions to easily copy the maps you want onto your device.

**Note** Once you install the detailed data on your device, you are ready to use your PN-Series GPS. The Topo USA or XMap software included with your device offers additional functionality best explored once you have loaded maps from the detailed DVDs and spent some time investigating your PN-Series GPS.

- ▶ **Compatible DeLorme mapping software**—Instructions for sending map packages, data, draw layers, and more to your PN-Series GPS vary by application. For more information, see the mapping application's Help.
- ▶ **Map Library**—Use the NetLink tab in your DeLorme mapping software or the DeLorme Online Map Center (<http://data.delorme.com>) to download many types of imagery and data, such as satellite imagery, aerial imagery, USGS Topo Quad maps, NOAA nautical charts, and more. With an annual Map Library subscription, you can download unlimited imagery and data for the entire year—the maps are yours to keep.
- ▶ **Non-DeLorme maps**—DeLorme's professional GIS

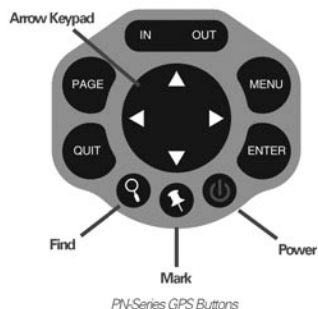
software, XMap®, allows you to register non-DeLorme maps and transfer them to a PN-Series GPS.

- ▶ **Navionics lake maps and marine charts**—Add fishing maps and boating maps and charts to your device with Navionics SD cards. For more information, see *Navionics* on page 24.

**Tip** A map package is a dataset you create for an area of interest that you can layer with DeLorme map data and other map datasets available from the NetLink Map Library.

# General Information

## Using the Buttons



### Power

Use the **Power** button to turn the PN-Series GPS on and off, to change the backlight settings, or to reset the device.

- ▶ To turn on the device, press and hold the **Power** button until the Welcome screen displays.
- ▶ To turn off the device, press the **Power** button. When you see the confirmation message, press the **ENTER** button. If you do not want to turn off the device, wait five seconds or press **QUIT**.

- ▶ To change the backlight intensity percentage, press and hold the **Power** button for approximately two seconds until you see the backlight indicator. To decrease the backlight intensity, press the left arrow on the arrow keypad. The right arrow increases the intensity. Each level of intensity represents a 10% change (100% is the maximum and 10% is the minimum).

**Note:** When you charge the device, the backlight is set to a default charging intensity that is lower than 100%.

- ▶ To turn the backlight off when the timer is set to Always On, press and hold the **Power** button for three seconds until the backlight shuts off.
- ▶ To turn the backlight on, press any button once.
- ▶ To reset the device when it is on, press and hold the **Power** button for seven seconds.

**Tips** Reducing the backlight intensity and decreasing the timer can significantly improve battery life. The daylight readable TFT screen is designed to be readable in direct sunlight or slanting light conditions. For more information about backlight intensity and the back light timer, see the **Device Setup > Display** section on page 63.



## In/Out

Use the **IN/OUT** button to zoom the map in or out or scroll through a list.

- ▶ Press **IN** once to zoom the map in one level and show more detail.
- ▶ Press and hold **IN** to zoom the map in all the way.
- ▶ Press **OUT** once to zoom the map out one level and show less detail.
- ▶ Press and hold **OUT** to zoom the map out all the way.
- ▶ Press **IN** or **OUT** to move forward or backward a page at a time.

## Page

Press the **PAGE** button to move forward through the enabled pages. To add, remove, or reorder pages, go to **MENU > Device Setup > Page Order** (for more information, see *Page Order* on page 66).

The default page sequence is:

- ▶ Satellites
- ▶ Map
- ▶ Compass
- ▶ Trip Info
- ▶ Directions (available when navigating)

## Menu

Press the **MENU** button to access functions for the page

or screen you are using and pages that are not enabled in the page order.

- ▶ The menu's top section lists actions specific to the active page—select the item and press **ENTER**.
- ▶ The bottom section lists the pages you may want to quickly access at any time.

## Find

The **Find** button is labeled with a magnifying glass. Use it to search for a point of interest, waypoint, geocache, address, coordinate, and more. You can search for a location by name or by its proximity to the current map center. For more information, see *The Find Page* section starting on page 31.

## Mark

The **Mark** button is labeled with a pushpin. Use it to mark a waypoint at your current GPS location or, when panning, at the cursor location. Once you mark a waypoint, use its details page to manage it, view it on the map, or create a route to it. For more information, see *The Waypoints Page* section starting on page 35.

## Arrow Keypad

The arrow keypad lets you move around pages and screens.

- ▶ Press once to move the map cursor left, right, up, or down in increments.

- ▶ Press and hold to pan the map.
- ▶ Highlight options in menus or lists. Press down to move to the next entry, press up from the first entry to go to the last entry, or down from the last entry to go to the first entry.
- ▶ Highlight fields and highlight characters on the keyboard screen.
- ▶ Press and hold to quickly scroll through a menu or list.
- ▶ On the Map Page, press any arrow once to turn on the backlight.

## Enter

Press the **ENTER** button to:

- ▶ Select a menu entry, field, or screen button.
- ▶ Get information about a point on the map to see detailed information, if available.



## Quit

The function of the **QUIT** button varies depending on the status of the PN-Series GPS; some of the things you can do are:

- ▶ Exit a page or screen.
- ▶ Cancel actions (for example, panning).
- ▶ Close the keyboard and cancel changes.
- ▶ Delete individual points when measuring distance.
- ▶ Move backwards through the page order sequence.

## Using the Keyboard









The on-screen keyboard is available when you need to enter text, such as when editing a waypoint label, adding text to a comment field, or entering search parameters. Use the arrow keypad to highlight the letter (A–Z), number (0–9), symbol (+, -, /, &), or punctuation you want to use, and then press **ENTER** after each selection. When you are finished using the keyboard, highlight **OK** and press **ENTER**.

For existing text, enter a letter to replace the highlighted content. To keep the existing text but move the cursor to the beginning/end of the text, select  to move the cursor to the beginning or  to move the cursor to the end of the text.



On-screen keyboard

## Special Keys

-  Move the cursor one space to the left without deleting a letter or number.
-  Move the cursor one space to the right without deleting a letter or number.
-  Change the case of the next letter (the active case is shown in the keyboard). To use all caps, highlight and then press **ENTER** twice.
-  Move the cursor one space to the left, deleting the character that was there.
-  Move the cursor one space to the right, leaving a blank space.
-  Clear the content of the text field being edited.
-  Accept the changes made to the text field and close the keyboard.
-  Insert a line break and move the cursor to the next line.

## Keyboard Shortcuts

These button presses on the PN-Series GPS are keyboard shortcuts.

- ▶ **IN**—Delete the last character
- ▶ **OUT**—Add a space
- ▶ **Find**—Shift (for upper case)
- ▶ **Mark**—Highlight **OK**
- ▶ **QUIT**—Exit the keyboard

## Info Fields

The Map, Compass, and Trip Info Pages include fields of information that you can customize to suit your needs. It is easy to go back to the default device settings at any time. Info fields on other pages cannot be changed.

For more information about what info fields contain, see the *Info Fields Table* on page 68.

### To hide or show info fields

On the Map Page, you can hide info fields for a full-screen view of the map or show them to get information.

- ▶ To hide info fields, go to **MENU > Info Fields > Hide Info Fields**.
- ▶ To show hidden info fields, go to **MENU > Info Fields > Show Info Fields**.

**Note** Info fields must show to change, arrange, or restore them to the default settings.

### To arrange info fields

On the Map Page and Compass Page, you can change how info fields look on the screen. You can customize the info field arrangement differently for tracking and navigating.

Go to **MENU > Info Fields > Arrange Info Fields** and select an option.

- ▶ 1 Wide, 2 Narrow
- ▶ 4 Narrow Fields

- ▶ 2 Wide Fields
- ▶ 2 Narrow Fields
- ▶ 1 Wide Field

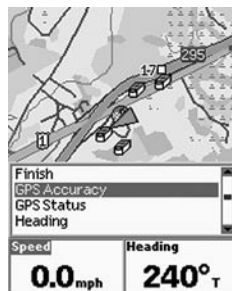
## To change the size of the text

On the Trip Info Page, you can change the size of the text that displays, which also changes the number of info fields. When the device is set to the small text option, it displays eight info fields (2 wide, 6 narrow)—when it is set to the large text option, it displays three wide info fields. Press **MENU**. The available text size option is preceded by "Switch to"—highlight the option and press **ENTER**.

## To change info fields

On the Map Page, Compass Page, and Trip Info Page, you can customize which info fields display for normal use and when navigating.

1. From the Map Page or the Compass Page, go to **MENU > Info Fields > Change Info Fields**.  
OR  
From the Trip Info Page, go to **MENU > Change Info Fields**.
2. The info fields are editable; select the info field you want to change and press **ENTER**.  
A list of available info fields opens.
3. Select the new info field and press **ENTER**.
4. When you finish editing fields, press **QUIT**.



*Change Info Fields option*

## To restore info fields

On the Map, Compass, and Trip Info Pages, you can restore the information fields to their default settings. This restores which fields show and their arrangement.

- ▶ From the Map Page or Compass Page, go to **MENU > Info Fields > Restore Info Defaults**.
- ▶ From the Trip Info Page, go to **MENU > Restore Info Defaults**.

**Note** If you reset the device's setup or factory defaults, the info fields will be restored to their default settings.

## Units

You can select the units for different types of measurements that are used on the PN-Series GPS.

To change the units, from any page go to **MENU > Device Setup > Units**.

For more information, see *Units* on page 66.

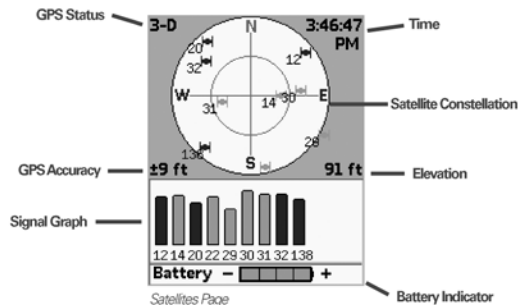
## Navigating or Tracking

Tracking is the normal state of the device when it has a GPS fix. You can turn off track recording, but the device is still in tracking mode. When you follow a route on the device, you are navigating.

# The Satellites Page

The Satellites Page displays GPS and satellite information, time, elevation, and the battery indicator.

It is the first page in the default **PAGE** button order. If you have removed the Satellites Page from the **PAGE** button order, go to **MENU > Satellites** to view it.



## Satellite Constellation and Signal Graph

Both the satellite constellation and the satellite signal graph display visible satellites and their identifying

numbers, which are assigned by the Department of Defense. The satellite constellation depicts each satellite's position in the sky relative to the device's current position. The signal graph bars indicate the strength of each satellite signal.

The icons in the satellite constellation and the lines in the signal graph are color-coded based on the quality of the data they are transmitting:

- ▶ **Red**—Indicates your GPS receiver is tracking the satellite, but it is not using it to navigate.
- ▶ **Green**—Indicates your GPS receiver is tracking the satellite, ephemeris data is available, and the satellite is being used for navigation.
- ▶ **Yellow**—Indicates your GPS receiver is tracking the satellite, predicted ephemeris data is available, and the satellite is being used for navigation.
- ▶ **Blue**—Indicates your receiver is tracking the satellite, ephemeris data is available, the satellite is being used for navigation, and the satellite has WAAS corrections available.

## GPS and WAAS Status

The GPS status is based on the satellite acquisition status:

- ▶ **GPS Off**—The GPS is disabled.
- ▶ **No Fix**—The GPS cannot find sufficient satellite data to determine your current GPS position.
- ▶ **2-D**—The GPS connection is successful, but the connection quality is not as good as a 3-D fix. This usually indicates insufficient data for an accurate location because only three satellites are being used (elevation is not available) or signals from the satellites are poor. Move your receiver to another location until you get better reception.
- ▶ **3-D**—The GPS receiver is receiving sufficient satellite data (horizontal position and elevation) to determine your location.

When the letter W appears below 2-D or 3-D, the PN-Series GPS has a WAAS connection. WAAS is available only in North America; it provides up to five times greater position accuracy than a regular 2-D or 3-D connection.

### To set the current location

If it takes a long time for the PN-Series GPS to obtain a 2-D or 3-D fix, verify it has a clear view of the sky. Be sure that trees, buildings, and other obstacles are not blocking the device.

If the device still cannot obtain a 2-D or 3-D fix, go to **MENU > Set Current Location**. When the Map Page displays; pan the map to your current location and press ENTER.

If the PN-Series GPS is unable to acquire a fix after approximately ten minutes, you will be prompted to disable the GPS or continue searching for satellites.

### To disable GPS

You can use many features on the PN-Series GPS without a GPS fix. When GPS is disabled, GPS OFF displays on the screen and all satellites are removed from the satellite constellation.

There are two ways to disable the GPS.

- ▶ From the Satellites Page go to **MENU > Disable GPS**.
- ▶ From any page, go to **MENU > Device Setup > System > GPS Settings > Disable GPS**.

To enable the GPS, follow the same steps and select **Enable GPS**.

GPS is temporarily disabled when in simulation mode (during track playback and navigation simulation).

## Time

You can change the time format, time zone, and manually enable or disable Daylight Saving Time. The time is

automatically set from the GPS satellites and is highly accurate.

To change the time settings, go to **MENU > Device Setup > Time**.

## GPS Accuracy

The calculated GPS accuracy displays in the units of measure you are using on your PN-Series GPS. On the Map Page, GPS accuracy is represented by a circle with a radius equal to the GPS accuracy; your actual location on the map is within the circle.

Any buildings, natural structures, or heavy foliage that obstruct the GPS antenna's view of the sky may prevent satellite signals from reaching the receiver and decrease the accuracy of your position. Placing the PN-Series GPS in a jacket or backpack pocket should not affect positional accuracy.

## Elevation

### **PN-40 only**

The elevation is based on the current barometric altimeter reading. When the Auto Calibrate Altimeter option is enabled, you may see the word "Calibrating" in the bottom right corner of the screen while the altimeter adjusts—typically 2-3 minutes. If you are using the Elevation: Altimeter info field on any page, you may see a red exclamation point

in the field while the altimeter adjusts.

For more information about calibrating the altimeter, see *Altimeter Calibration* on page 76.

## Battery Indicator

The battery indicator depicts the available battery power:

- ▶ **Four green bars**—Indicates a full charge.
- ▶ **Three green bars**—One quarter of the battery power has been used.
- ▶ **Two yellow bars**—One half of the battery power has been used.
- ▶ **One red bar**—Three quarters of the battery power has been used. Once the battery has reached 5% of its total battery power, a low battery warning displays.

When a DeLorme Li-ion battery is charging, the battery indicator graphic is animated and the word "Battery" is replaced with "Charging." Once the battery is fully charged, the battery indicator graphic displays four static green bars and "External" displays until you disconnect the USB cable.

If you are not using the DeLorme Li-ion battery, "External" displays whenever you plug your device into your computer.



## Compass and Altimeter

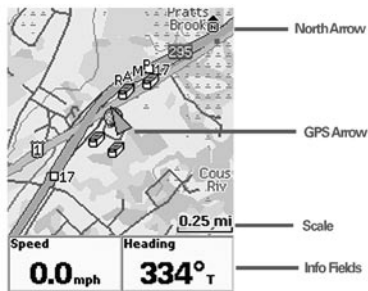
### ***PN-40 only***

You can calibrate the PN-40's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Device Setup > Compass & Altimeter menu. The Device Setup > Compass & Altimeter options allow you to disable/enable the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option. For more information, see *Compass and Altimeter Settings* starting on page 75.

# The Map Page

The Map Page centers the map on your current location when the PN-Series GPS has a 2-D or 3-D fix. When it does not have a GPS fix, the map displays your last GPS position. For more information, see *GPS and WAAS Status* on page 13.

It is the second page in the default **PAGE** button order; you cannot remove it from the page order.



Map Page

## GPS Arrow

The GPS arrow displays on the map when GPS is enabled.

The color of the GPS arrow depends on your GPS signal and the arrow points in the direction of the last known heading.

- ▶ **Flashing red**—The device cannot obtain a GPS signal and is not tracking satellites.
- ▶ **Blue**—The device is in Track Playback mode or Simulate Navigation mode.
- ▶ **Yellow**—The device has a 2-D fix and predicted ephemeris data is available.
- ▶ **Green**—The device has a 3-D fix.

## Tracking

When tracking satellites, a track line—also known as a breadcrumb trail—follows the GPS arrow as you move. If you have turned off track recording, the track does not appear. For more information, see *The Tracks Page* section beginning on page 52.

## Scale and Orientation

For information about:

- ▶ Setting the scale, see *Scale* on page 22.
- ▶ Map orientation, see *Orientation* on page 21.

## Panning the Map

There are two ways to pan the map.

- ▶ **Automatic panning**—When GPS tracking or navigating, the map automatically pans in the direction of travel. The map does not automatically pan when the map cursor is visible.
- ▶ **Manual panning**—To manually pan the map, use the arrow keypad to move the cursor in the direction you want to view.
  - » Use single presses to move the cursor in increments.
  - » Press and hold to quickly pan to a new location.
  - » Hold the cursor at the edge of the screen to keep panning in that direction.
  - » Press **QUIT** to center the map on your current location.

As you pan, a text field at the top of the map displays information about the cursor location. When you stop the cursor over an object, the field in the bottom left corner displays the object name; see the next section for more information.



## Getting Information About a Location

For information about objects at your current GPS location, press **ENTER**.

OR

Pan the map to a new location. When you stop the cursor over an object, the object's name is displayed in the bottom left corner of the map. Press **ENTER**.

- ▶ When a single object is found, the object details page displays. From this page, you can mark a waypoint, view the object on the map, or route to the object.
- ▶ When multiple objects are found, the Multiple Objects screen displays a list of the objects at that location; user-created objects (such as waypoints) appear at the

top of the list. Select an object and then press **ENTER** to view its details page.

## Info Fields

You can hide/show, change, and arrange the info fields at the bottom of the Map Page. The info fields change when you are navigating. To access the Info Fields options, go to **MENU > Info Fields**. For more information, see the *Info Fields* section beginning on page 9.

## Measure Distance

Use the measurement tool to measure the distance of a line or the perimeter and area of a polygon on the map.

### To measure distance

From the Map Page, go to **MENU > Measure Distance**.

- ▶ Use the arrow keypad to move the cursor to the area on the map where you want to place the first point of the line or polygon and press **ENTER** to place the first point. Repeat for each point.
- ▶ To undo a point, press **QUIT**.
- ▶ To make a polygon, you must close the shape. Place the last point on top of the first point, hover the cursor over the start location and press **ENTER** to snap the point and close the polygon.

While you are measuring distance, the pan location information that displays in the top right corner of the

screen changes to display the heading from the last measurement node to your current GPS location, the leg distance, and the total distance from the last measurement node to the first measurement node. Once you close a polygon, it displays the area.



Measure distance and area

## Map Setup

Use the Map Setup page to customize the map. You can order data layers; show or hide maps and imagery; choose map orientation and scale; and determine how various information displays on the map.

From the Map Page, go to **MENU > Map Setup**.

## Data Layering

The PN-Series GPS base map shows high-level world coverage, as well as more detailed U.S. coverage. You can add maps, data, imagery, draw files, and more to your device to supplement the base map. When you add different types of maps to the same area, you can customize the order in which the layers appear.

For more information about the types of data you can add to your PN-Series GPS, see *Detailed Map Data* on page 4.

Only the data types you have on your device show in the Data Layering list. To manage individual map packages that you have added to your device, see the next section—*Data Management*.

The default order for layering data is:

- ▶ GIS Layers (XMap® only)
- ▶ Draw Layers
- ▶ User Raster Data (XMap only)
- ▶ ImageReg (XMap only)
- ▶ High-resolution City Imagery (Hi-Res Cities)
- ▶ Color Aerial Imagery (Color DOQQ)
- ▶ Aerial Imagery (DOQQ)
- ▶ USGS Quads (3DTQ)
- ▶ NOAA Nautical Charts (NOAA Charts)
- ▶ Satellite Imagery (SAT10)
- ▶ DeLorme Topographic Data (Topo USA 8)

## To layer data

Use the Data Layering option to select the types of data you want to view on your PN-Series GPS and the order in which you want data to display.

From the Map Page, go to **MENU > Map Setup > Data Layering** to view a list of all the types of data you have stored on your device's internal memory or on an SD card in the device; this may include data that is not available for the area you are viewing. When you highlight an item, the full name of the data type shows in the box at the bottom of the screen.

- ▶ To show a type of data, select the check box next to it.
- ▶ To hide a type, clear the check box next to it.
- ▶ To change the order in which data is layered, highlight the item you want to move, then use the arrows on the right side of the screen to move the item up or down in the list. If two data types have identical zoom level settings, the one higher in the list has precedence.
- ▶ To select/deselect all check boxes, go to **MENU > Select All** or **MENU > Deselect All**.
- ▶ To reset the default layer settings (all check boxes selected and data ordered as in the list above), go to **MENU > Restore Layer Defaults**.

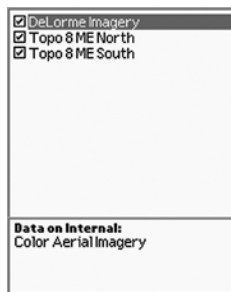


Data Layering

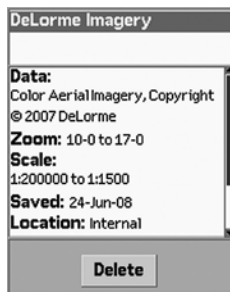
## Data Management

After you add a map—also called a map package or a map file—from a compatible DeLorme mapping program or the DeLorme Online Map Center to the PN-Series GPS, you can show or hide it on the device; view details about it, including where it is stored; or delete it. To change the priority of how different *types* of map data are displayed, see the previous section—*Data Layering*.

For more information about the types of data you can add to your PN-Series GPS, see *Detailed Map Data* on page 4.



Data Management



Data Management detail

### To manage maps and data

From the Map Page, go to **MENU > Map Setup > Data Management** to view a list of the map packages you have stored in your device's internal memory or on an SD card in the device. When you highlight an item, the type of data and location shows at the bottom of the screen.

- ▶ To show the map package, select the check box next to it.
- ▶ To hide the map package, clear the check box next to it.
- ▶ To select/deselect all check boxes, go to **MENU > Select All** or **MENU > Deselect All**.
- ▶ To view the map package on your device, highlight it and go to **MENU > View Map**.
- ▶ To view details for a map package, highlight it and go to **MENU > Data Detail**.

This displays the name, data types, zoom level, scale

information, save date, location (internal or SD card), and version information.

- ▶ To delete a map package, highlight it and go to **MENU > Data Detail > Delete**.

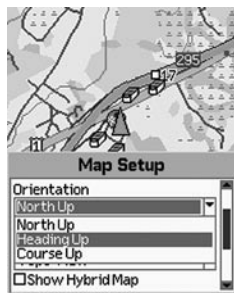
## Turn Imagery On/Off

When you have added map packages that include imagery to your PN-Series GPS, you can quickly turn the imagery off or on.

From the Map Page, go to **MENU > Turn Imagery On** or **Turn Imagery Off**.

## Orientation

You can set the map to rotate as you move.



Orientation

### To change the map orientation

From the Map Page, go to **MENU > Map Setup >**

**Orientation** and select the map orientation from the drop-down list.

- ▶ **North Up**—North is always at the top of the map screen.
- ▶ **Heading Up**—The direction in which you are traveling is always at the top of the map screen. The North Arrow displays in the top right corner of the map screen.
- ▶ **Course Up**—The direction of the finish of your route is always at the top of the map screen. The North Arrow displays in the top right corner of the map screen when navigating.

If you want Heading Up or Course Up to automatically switch to North Up above the specified scale (depends on the units of measure you have set), select the **North Up above... scale** check box.

## Map Style

Topo View displays all topographic data as it was saved in the map package; this is the default view. Street View hides the contours and land cover for a clean road map that is easier to view when driving.

To change the map style, from the Map Page go to **MENU > Map Setup > Map Style** and select **Topo View** or **Street View** from the drop-down list.

## Hybrid Map

Select the Show Hybrid Map check box to show points, lines, and labels on top of imagery. Hybrid maps are visible at 640 feet and higher.

From the Map Page, go to **MENU > Map Setup > Map Style > Show Hybrid Map**.



Hybrid map

## Map Point Management

You can customize how points of interest (POIs), waypoints, and geocaches display on the map.

From the Map Page, go to **MENU > Map Setup > Map Point Management**. Use the drop-down list for each option to select how you want it to appear on the map.

- ▶ **POI Detail**—Hide POIs, Show Major POIs, Show Minor POIs, or Show All POIs.
- ▶ **Hide Waypoint Symbols**—Never, Always, or select a

scale above which to hide them.

- ▶ **Small Waypoint Symbols**—Never, Always, or select a scale above which to hide them.
- ▶ **Hide Geocache Symbols**—Never, Always, or select a scale above which to hide them.
- ▶ **Small Geocache Symbols**—Never, Always, or select a scale above which to hide them.

To hide logged geocaches, select the **Hide Logged Caches** check box.

## Scale

The scale option lets you set the type of scale you want to use on your maps.



Scale options

## To set the scale

From the Map Page, go to **MENU > Map Setup > Scale** and select an option.



- ▶ **Bar**—Represents a given length on the map compared to an actual length.
- ▶ **Zoom**—The DeLorme method of describing map detail level. Each time the zoom level increases, the scale doubles.
- ▶ **Ratio**—Shows a ratio of a unit on the device compared to the actual unit.

## Other Menu Options

When navigating or viewing a route on the map, additional options are available on the Map Page menu.



## View Comment Details

When navigating to a waypoint or geocache, the View Comment Details option allows you to view the comment for the waypoint or geocache. If you view another waypoint or geocache, View Comment Details displays the most

recent comment details viewed.

Go to **MENU > View Comment Details**.

## Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field notes, and pick a route to your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 40.

## Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 47.

Go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

## Hide Route

When you are viewing a route on the map, you can hide it. Go to **MENU > Hide Route**.

## Navionics

You can use Navionics® HotMaps Premium Lake Maps and GOLD+ Marine Charts with your PN-Series GPS device. The charts are available on SD cards that you insert into your devices. For more information about the charts that are available, visit [www.navionics.com](http://www.navionics.com).

### General Information

- ▶ You must update your device firmware (2.6 or higher) to use a Navionics SD card.
- ▶ Navionics information appears on the device only when have a Navionics SD card in your device.
- ▶ You cannot save maps or data to a Navionics SD card—the memory on the card is unavailable.
- ▶ The Navionics data overlays the DeLorme maps on device—the DeLorme maps are used for routing and Find.
- ▶ Tracks, routes, waypoints, and geocaches display over the Navionics charts.
- ▶ When you pan the map and select an object (other than those listed above) with the map cursor, Navionics information is displayed.

### Turn Charts On/Off

You can quickly turn Navionics charts on or off. The Navionics chart closest to the map center automatically displays.

From the Map Page, go to **MENU > Turn Charts On** or **Turn Charts Off**.

**Note** This menu option controls the Show Charts and Show Boundaries check boxes on the Navionics Setup page.

### Navionics Setup

Customize the way Navionics charts appear on your PN-Series GPS. To access all of these options, go to **MENU > Map Setup > Navionics Setup**.



*Navionics setup*

### To select a chart

Select the chart or map you want to view—the contents of the SD card are listed in the Charts drop-down list.

From the Navionics Setup page, go to select the chart or map you want to use from the **Chart** drop-down list.

## To view a chart or map

To view the chart or map selected in the Chart drop-down list on the device, click **View Chart**.

## To show charts or boundaries

Control how you view charts and their boundaries on the map—view charts alone, boundaries alone, or both together.

- ▶ To show charts, select the **Show Charts** check box.
- ▶ To show boundaries, select the **Show Boundaries** check box.

## To hide charts by map scale

You can customize at which map scale you can view charts on the device.

From the **Hide Charts** check box, select the scale above which you want to hide the charts.

## To set chart details

To change the detail level of your charts, select **High** or **Low** from the Chart Details drop-down list.

## To show or hide contours

You can show all contours or select a level above which to view them.

From the **Hide Contours** drop-down list, select the option you want to use.

## To set the safety depth

Set the safety depth or turn it off.

From the **Safety Depth** drop-down list, select the option you want to use.

## To set the presentation mode

US and International charts have different symbols and markings. You can set the way you want this information to display.

From the **Presentation Mode** drop-down list, select **US** or **International**.

## To show the depth in fathoms

If you want to show chart depths in fathoms instead of feet or meters, select the **Show Depth in Fathoms** check box.

## To restore the default settings

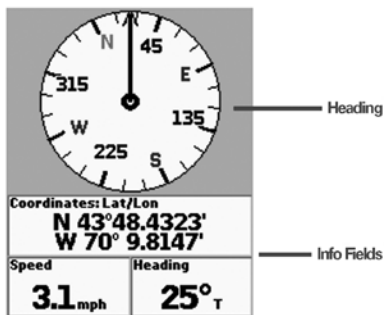
To restore the default Navionics Setup settings, select **Restore Defaults**.

**Tip** On marine charts, select the Port Services symbol (pink ship) to view a list of services available at the location. You must zoom in to 640 ft/200 m to view the symbol.

# The Compass Page

The Compass Page is a graphic representation of a traditional floating-needle compass.

It is the third page in the default **PAGE** button order. If you have removed the Compass Page from the **PAGE** button order, go to **MENU > Compass** to view it.

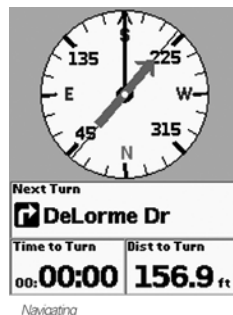


Compass Page

Both the PN-30 and the PN-40 use the GPS to determine compass readings when the device is moving; the PN-40 also has an electronic compass (see p.25 for more information) for use when the device is stationary or moving below 1.5 mph.

## Bearing Arrow

On the Compass Page, the compass rotates so that the heading is always up. When you are navigating a route, a bearing arrow displays on the compass and the info fields update.



## To change the Hiking Route Arrow

When you are navigating a hiking (direct) route, you can choose to have the bearing arrow point to the next waypoint in your route or point back on course if you leave the route. To set the hiking route arrow method; from

the Routes Page, go to **MENU > Edit Route Settings > Compass Navigation Arrow**.

To change the hiking route arrow from the Compass Page, press **MENU > Compass Navigation Arrow > Direct to Next Waypoint** or **Back on Course**.

## Info Fields

You can hide/show, change, and arrange the info fields at the bottom of the Compass Page. The info fields change when you are navigating. To access the Info Fields options, go to **MENU > Info Fields**. For more information, see the *Info Fields* section beginning on page 9.

## Electronic Compass

### ***PN-40 Only***

The PN-40 has an electronic compass that shows your directions when you are stationary or almost motionless. When your speed is 1.5 mph or higher, the compass reading is based on your GPS location.

When the electronic compass reading is not accurate, “Poor Accuracy” displays in the bottom right corner of the screen, and a red exclamation point appears in the Heading info field. When you see this indicator, you may want to calibrate the compass, unless you know the inaccuracy is caused by a temporary event, such as being near power

lines or near a magnetic field, such as a car. You may want to disable the electronic compass when you are in an area with magnetic interference. For more information, see *Compass and Altimeter* starting on page 74.

## Calibrating Sensors

### ***PN-40 only***

You can calibrate the PN-40's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Device Setup > Compass & Altimeter menu. The Device Setup > Compass & Altimeter options allow you to disable/enable the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option. For more information, see *Compass and Altimeter* starting on page 74.

## Other Menu Options

When navigating, additional options are available on the Compass Page menu.

### **View Comment Details**

When navigating to a waypoint or geocache, the View Comment Details option allows you to view the comment for the waypoint or geocache. If you view another waypoint or geocache, View Comment Details displays the most recent comment details viewed.

Go to **MENU > View Comment Details**.

## Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field notes, and pick a route to your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 40.

## Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 47.

Go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

# The Trip Info Page

The Trip Info Page displays info fields that occupy the entire screen. You can customize each field with one of the many available info field options.

It is the fourth page in the default **PAGE** button order. If you have removed the Trip Info Page from the **PAGE** button order, go to **MENU > Trip Info** to view it.

Next Turn	
US 1	
Distance to Finish	
2.92 mi	
Time to Turn	Dist to Turn
00:02:49	0.42 mi
Trip: Moving	Speed
00:06:40	21.4 mph
Trip: Total	Speed: Avg
07:37 :41	0.5 mph

*Trip Info while navigating*

## Info Fields

You can hide/show, change, and arrange the info fields. You can also use the large text option, which displays in three horizontal info fields. The info fields change when you

are navigating. For more information, see the *Info Fields* section beginning on page 9.

For descriptions of all the info fields, see the *Info Fields Table* section beginning on page 68.

### To reset the trip information

Use the Reset Info option to start a new trip and reset the trip values (trip odometer, time moving, time stopped, and time total), speed information (average, maximum, and moving average), elevation (maximum and minimum), and the device odometer. Track recording is not reset. If you want to keep track of all your travels on your device, clear the **Device Odometer** check box before you reset your information.

1. From the Trip Info Page, go to **MENU > Reset Info**.
  - » To reset an option, select the check box next to it.
  - » To exclude an option from being reset, clear the check box next to it.
2. Select **Reset Now**.

## Other Menu Options

When navigating, additional options are available on the Trip Info Page menu.

### View Comment Details

When navigating to a waypoint or geocache, the View Comment Details option allows you to view the comment for the waypoint or geocache. If you view another waypoint or geocache, View Comment Details displays the most recent comment details viewed.

Go to **MENU > View Comment Details**.

### Log Your Geocache Find

When navigating to a geocache, use the Log Your Geocache Find option to quickly log geocaches, write field notes, and pick a route to your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 40.

### Route Options


When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 47.

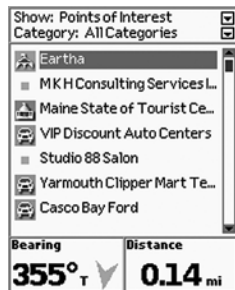
Go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).



# The Find Page

Use the Find Page to search for addresses, roads, cities, points of interest (POIs), waypoints, geocaches, coordinates, and more on your PN-Series GPS.

To open the Find Page, press the **Find** button .



Find Page

## Search Methods

There are two Find search options. The most recent search method you use is saved between searches.

**Find Near Map Center**—This is the default search method. The device searches from the current GPS location; if

GPS is disabled or if you are panning the map or viewing another location, it searches from the current map center.

- ▶ For some search types, you can narrow your search with additional parameters, such as categories or symbols.
- ▶ The search continues until the maximum number of search results (100) is found.

**Find by Name**—Use this option to search for a specific location by its name. Results are listed alphabetically.

- ▶ Narrow a Name search with the Name Contains or Name Begins with options—press **MENU** to access them.
  - » **Name Begins With**—In the **Name** field, type one or more letters that the name begins with; the more letters you enter, the more relevant your results are.
  - » **Name Contains**—In the **Name** field, type one or more characters that the name contains; the more characters you enter, the more relevant your results are.
- ▶ For some search types, you can also narrow your search with additional parameters, such as categories

or symbols.

- ▶ When the City, State, or Country fields are available, the more information you enter, the more refined your search results are. If you do not enter anything or if those fields are unavailable, the search starts from the map center.
- ▶ To clear all fields into which you have entered information, go to **MENU > Clear All Fields**.

## To view the search method you are using

Go to **Find > MENU**. The available options are preceded by "Switch to..." and the device is set to the option that is not showing.

If the device is set to:

- ▶ **Find Near Map Center**, then **Switch to Find by Name** is available.
- ▶ **Find by Name**, then **Switch to Find Near Map Center** is available.

In addition, the **Switch to Name Begins With** OR **Switch to Name Contains** option is available. For example, if you see *Switch to Find Near Map Center* and *Switch to Name Contains* on the screen, the device is currently set to use Find by Name > Name Begins With.

To change the search method, select the method to use.

## Searching for a Location

To search for a location, press **Find** at any time. The search begins, using the current search criteria.

- ▶ You can change the search method (see *Search Methods* on page 29).
- ▶ You can use additional search parameters, when available, to narrow your search.
- ▶ "Searching >>>" displays as the device searches for locations.
- ▶ At any time, press the arrow keypad to stop the search process.
- ▶ If the search process is stopped, select **Continue Search** to keep searching.

The Show field is the primary search category. The Show field options and additional parameters for each Show category are as follows:

- ▶ **All**  
State/Country/City/Name (Find by Name only)
- ▶ **Recent Finds**—Shows the ten most recent search results.
- ▶ **Draw Layers** (appears only if you have draw layers on the device)  
Name (Find by Name only)
- ▶ **GIS Layers** (appears only if you have GIS layers on the

device)

Name (Find by Name only)

#### ► Waypoints

Symbol

Name (Find by Name only)

#### ► Geocaches

Symbol

Name (Find by Name only)

#### ► Points of Interest

Category

State/Country/City/Name (Find by Name only)

#### ► Natural Features

Category

State/Country/City/Name (Find by Name only)

#### ► Addresses

State/Country/City/Building Number/Street Name (Find by Name only)

#### ► Coordinates

Coordinates can be edited.

#### ► Streets/Trails

State/Country/City/Name (Find by Name only)

#### ► Cities

State/Country/Name (Find by Name only)



Address (Find by Name)

POI (Find Near Map Center)

## To edit/change search fields

When a field is highlighted, you can edit or change it.

To edit a field, press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

## Search Results

Search results are displayed in a list. When you highlight an item in the list, the Bearing and Distance info fields display measurements as follows:

- From the GPS position when the device has a GPS fix.
- From the cursor location if you are manually panning or viewing another location.
- From the map center if GPS is disabled.

## To view the results list

To view the results, use the arrow keypad to scroll through the list. The maximum number of results for each search is 100.

## To view search result details

To view the details for an item on the list, select it. The search result details page displays.

Symbol/Label	
Eartha	
Information	
Tourist Attraction	
Yarmouth, ME 04096	
Bearing	Distance
355° T	0.14 mi
Mark	View Route

Search result details

## To mark a waypoint for a search result

On the search result details page, select **Mark**. The result is saved as a waypoint and the waypoint details page displays; you can edit the information. For more information see *To edit waypoint details* on page 38.

## To view/center a search result on the map

On the search result, waypoint, or geocache details page, select **View**. The Map Page displays and is centered on the search result. Press **QUIT** to return to the details page.

## To create a route to a search result

You can navigate directly to the search result from your current location. For more information about creating and modifying routes, see *The Routes Page* starting on page 47.

1. On the details page for the search result, select **Route**.
2. On the route details page, select **Navigate**.

**Note** When you are creating a route from a geocache details page, go to step 3.

3. Select **Hike** or **Drive**.

The route calculates and the Map Page opens in navigation mode.

# The Waypoints Page

The Waypoints Page is a list of the waypoints created on your PN-Series GPS or sent to it from a DeLorme mapping application. A waypoint is a specific place on the map, identified by coordinates, to which you can assign a symbol, name, and other information. You can also use the **Find** button to search for waypoints; for more information see *The Find Page* section starting on page 31.

To open the Waypoints Page, from any page go to **MENU** > **Waypoints**. If you have added the Waypoints Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Waypoints Page

The Waypoints Page displays a list of all the waypoints on the device; the number of waypoints is listed in the page heading. If you have a large number of waypoints on the device, press **ENTER** to interrupt the Sorting Waypoints process and load a partial list.

When you highlight an item in the list, the Bearing and Distance info fields display measurements as follows:

- ▶ From the GPS position when the device has a GPS fix.
- ▶ From the cursor location if you are manually panning the map.
- ▶ From the map center if GPS is disabled.

## Sorting the List

There are two ways to sort your list of waypoints. From the Waypoints Page, press **MENU**; the device is set to the option that is not showing. The available option is highlighted and preceded by "Switch to." To switch to the highlighted option, press **ENTER**.

- ▶ **Sort by Distance**—Sorts the list by distance from your GPS location (or map cursor location).
- ▶ **Sort by Name**—Sorts the list in alphabetical order.

## Symbols


The waypoint symbols available on the PN-Series GPS are the same as the PN-Series symbol set in your DeLorme mapping application. This symbol set includes geocaching symbols (these are at the end of the symbol list). To ensure your waypoint displays on the Waypoints Page, make sure you select a waypoint symbol. If you use a geocaching symbol, the waypoint will be saved on the Geocaches Page. To see the geocaching symbols, go to page 41. For a complete list of symbols, see the DeLorme PN-Series Wiki (<http://wiki.delorme.com>).

When you mark a waypoint with the **Mark** button, the default waypoint symbol is a red map pin and the label is "Wpt 001." When you change the symbol or label, each new waypoint uses that format until you change either the symbol or the name. When you add multiple waypoints with the same name, a sequential number is added to the name. For example, if you keep the default name of Wpt 001, the next waypoint you add is Wpt 002, and so on.

When you mark a waypoint from a details page, such as a Find search result or a map object, the device uses the default information available for the symbol and name. If no information is available, the red pushpin is the default symbol.

## Add Waypoints

### Mark

Use the **Mark** button  on the PN-Series GPS to mark a waypoint at your current GPS location or at the map cursor if you are viewing another location on the map. When you press **Mark**, a waypoint details page opens. When the waypoint is marked at the map cursor location, the elevation is not available. You can edit the details or average the waypoint location before you save it.

You can also mark waypoints from Find search result details and route point details pages.

### ***DeLorme Earthmate PN-Series GPS Exchange***

With DeLorme Topo USA® or XMap®, you can create waypoints on your desktop and then transfer them to the PN-Series GPS using the DeLorme Earthmate PN-Series GPS Exchange dialog in the application. Once you add them to your device, they are saved on the Waypoints Page.

Symbol/Label  DeLorme	
Coordinates: Lat/Lon N 43°48.4743' W070°09.8336'	
Elevation --	Time/Date 04:00 AM 15-May-09
Comments	
<input type="button" value="Delete"/> <input type="button" value="View"/> <input type="button" value="Route"/>	

Waypoint details page

## To mark a waypoint on the map

1. From the Map Page, press **Mark**. The waypoint is placed at the GPS location or the map cursor panning the map or viewing another location.
2. On the waypoint details page, you can do the following:
  - » Edit the waypoint details; for more information, see the next section.
  - » Select **View** to center the waypoint on the map. To return to the waypoint details page, press **QUIT**.
  - » Average the waypoint; for more information, see *Average a Waypoint*.
3. Select **Save**.

## To mark a waypoint from a search result or route point

On a Find search result details page or a route point details page, select **Mark**. The result is saved as a waypoint and the waypoint details page displays; you can edit the information.

On the search result details page, select **Mark**. For more information see *To edit waypoint details* on page 38.

**Note** You are selecting the Mark option on the screen with the **ENTER** button—not pressing the device's **Mark** button.

## Average a Waypoint

When you average a waypoint, the PN-Series GPS records a series of GPS readings for the waypoint's location and averages them to increase the positional accuracy of the waypoint. As you average the waypoint, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. The more readings you record, the greater the positional accuracy of the waypoint. The estimated accuracy number decreases as the accuracy improves.

A waypoint is averaged based on your current GPS location.

## To average a waypoint when you create it

1. Mark a waypoint at your current GPS location but do not save it.
2. On the waypoint details page, select **Average** or go to **MENU > Average Waypoint**.
3. When the device has recorded the number of readings you want, press **ENTER**.
4. On the waypoint details page, select **Save**.

## To average a saved waypoint

From the Waypoints Page, select the waypoint. Then, go to **MENU > Average Waypoint**. When the device has recorded the number of readings you want, press **ENTER**.

***Tip** Average your location during multiple visits, at different times of the day to get the best results. Always place the device in the same location to average the waypoint.*

# Manage Waypoints

## To edit waypoint details

On a waypoint details page, you can customize the waypoint symbol, label (name), coordinates, elevation, time/date, and comments. When a field is highlighted, you can edit or change it.

To edit a field, press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

## To view comment details

From the waypoint details page, go to **MENU > View Comment Details**.

**Note** When navigating to a waypoint or geocache, the View Comment Details option is also available from the Map, Compass, Trip Info, and Directions pages. From those pages, the View Comment Details option displays the most recent comment details viewed.

## To view/center a waypoint on the map

From the waypoint details page, select **View**; press **QUIT** to return to the waypoint details page.

## To move the waypoint to the current GPS location

From the waypoint details page, go to **MENU > Move to GPS Location**. When you see the confirmation message, select **Yes**.

## To create a route to a waypoint

You can navigate directly to waypoint from your current location. For more information about creating and modifying routes, see *The Routes Page* starting on page 47.

1. On the waypoint details page, select **Route**.
2. On the route details page, select **Navigate**.
3. Select **Hike** or **Drive**.

The Map Page opens in navigation mode.



## To delete a waypoint

From the waypoint details page, go to **MENU > Delete Waypoint**. When you see the confirmation message, select **Yes**.

## To delete waypoints by symbol

1. From the Waypoints Page, go to **MENU > Delete by Symbol**.
2. On the Waypoints Symbol page, select the check box for each symbol you want to delete. Only symbols used on the device are listed.
3. Select **Delete**. When you see the confirmation message, select **Yes**.

## To delete all waypoints

1. From the Waypoints Page, go to **MENU > Delete All Waypoints**.
2. On the Manage Memory screen, the **Delete All Waypoints** check box and **Delete Now** button are selected. Press **ENTER**.
3. When you see the confirmation message, select **Yes**.

# The Geocaches Page

Use the Geocaches Page to manage geocaches you have sent to your PN-Series GPS—a geocache is a special type of waypoint that uses symbols from Geocaching.com. The Geocaches Page displays a list of the geocaches on your device. You can also use the **Find** button to search for geocaches; for more information see *The Find Page* section starting on page 31.

To open the Geocaches Page, from any page go to **MENU** > **Geocaches**. If you have added the Geocaches Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Geocaches Page

The Geocaches Page displays a list of geocaches, based on the display method you are using (see the next section); the number of geocaches in the list displays in the page heading. If you have a large number of geocaches on the device, press **ENTER** to interrupt the Sorting Geocaches process and load a partial list.

When you highlight an item on the Geocaches Page, the Bearing and Distance info fields display measurements as follows:

- ▶ From the GPS position when the device has a GPS fix.
- ▶ From the cursor location if you are manually panning the map.
- ▶ From the map center if GPS is disabled.

## Sorting and Displaying the List

To choose the options for sorting and displaying geocaches, from the Geocaches Page, press **MENU**; the device is set to the options that are not showing. The available options are listed and preceded by "Switch to." Select the options you want to use.

There are two ways to sort the geocaches list.

- ▶ **Sort by Distance**—Sorts the list by distance from your GPS location (or map cursor location). When you are sorting by distance, if you have a large number of geocaches a progress bar displays; press the **ENTER** button at any time to stop the sorting process.
- ▶ **Sort by Name**—Sorts the list in alphabetical order.

There are two ways to display the geocaches list.

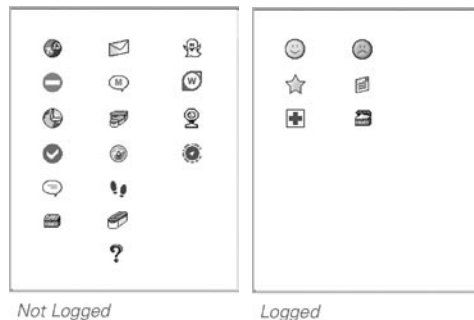
- ▶ **Show Not Logged**—Geocaches you have not yet tried to find.
- ▶ **Show Logged**—Geocaches for which you have logged your find or attempt to find. This includes geocaches with Found It!, Didn't Find It, Write Note, and Needs Maintenance symbols.

## Symbols

The symbols available on the PN-Series GPS are from the PN-Series symbol set in your DeLorme mapping application. Geocaching symbols appear at the end of the symbol list. For a complete list of symbols, see the DeLorme PN-Series Wiki (<http://wiki.delorme.com>).

When you edit a geocache symbol, be aware that any changes may affect where the geocache is stored. For example, if you choose a waypoint symbol, the geocache will move to the Waypoints Page and if you change a symbol

from a not logged to a logged symbol type, it will move from the Show Not Logged to the Show Logged list.



## Comments and Hints

The Last Logged field displays the first two lines of the most recent log entry. Comment details give you detailed information about the geocache, such as the cache ID, the size, the difficulty and terrain, as well as the full description, the hint, and the full log. **Note** .loc files do not include comments.

## To view comment details

From the geocache details page, go to **MENU > View Comment Details**.

**Note** When navigating to a waypoint or geocache, the View Comment Details option is also available from the

Map, Compass, Trip Info, and Directions pages. From those pages, the View Comment Details option displays the most recent comment details viewed.

**Tip** Press the **Out** button to move through the comment one page at a time. Press the **Up** arrow on the arrow keypad to move to the end of the comment.

## To view the geocache hint

To quickly view the geocache hint, from the geocache details page go to **MENU > View Hint**.



Comments

## Add Geocaches

Use one of the following methods to send geocaches to your device.

- ▶ **DeLorme Send to GPS plugin**—This free plugin is available to members of Geocaching.com. To use it,

you must first download the plugin to your computer from the DeLorme website ([www.delorme.com/geocaching/plugin/](http://www.delorme.com/geocaching/plugin/)). For information on how to use the plugin, see *To add a geocache with the Send to GPS plugin* below.

- ▶ **DeLorme Cache Register**—Cache Register is a desktop computer utility you can use to send pocket queries (groups of geocaches) from Geocaching.com to a PN-Series GPS. You must be a premium member of Geocaching.com to create pocket queries. To purchase Cache Register, visit our website ([www.delorme.com](http://www.delorme.com)). See the program's Help for more information on how to use Cache Register.
- ▶ **DeLorme Topo USA® 8.0**—Use the Draw tab to import .loc or .gpx files and then send them to your device. See the program's Help for more information. **Note** .loc files do not include comments.

## To add a geocache with the Send to GPS plugin

With the DeLorme Send to GPS plugin, you can send one geocache at a time to a PN-Series GPS. You must be logged in to Geocaching.com to use this feature. Please note that geocache descriptions and hints are available only for premium members of Geocaching.com.

1. Connect your PN-Series GPS to your computer.

- On the Connect to Computer page, select **Data Exchange**.  
OR  
Go to **MENU > Device Setup > Connect to Computer > USB Setting** and select **Data Exchange**.
- On Geocaching.com, use the Seek a Cache feature to find the geocaches in your area of interest.
- From the results list, click the **Send to GPS** icon or view the geocache's details and click the **Send to GPS** button.  
The DeLorme Send to GPS plugin opens and transfers the geocache to your device.
- Repeat step 4 to send each geocache you want to look for.

## Manage Geocaches

### To edit geocache details

Use the geocache details page to view detailed information about geocache, when available. You can edit the symbol, label, and coordinates. You can edit comment details only for geocaches you have created on the device. Changes you make to the geocache details on your device do not update information on Geocaching.com.

To edit a field, select it and press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

Symbol/Label	
Bears In The Bushes	
Coordinates: Lat/Lon N 43°48.4170' W 070°09.9340'	
D/T D ☆☆☆☆☆ T ☆☆☆☆☆	Size Regular
Last Logged Write note 2009-07-01	
Delete	View Route

*Geocache details*

### To view/center a geocache on the map

From the geocache details page, select **View**; press **QUIT** to return to the geocache details page.

### To move the geocache to the GPS location

From the geocache details page, go to **MENU > Move to GPS Location**. When you see the confirmation message, select **Yes**.

### To delete a geocache

From the geocache details page, go to **MENU > Delete Geocache**. When you see the confirmation message, select **Yes**.

### To delete geocaches by symbol

- From the Geocaches Page, go to **MENU > Delete by Symbol**.

2. On the Geocaches Symbol page, select the check box for each symbol you want to delete. Only symbols used on the device are listed.
3. Select **Delete**. When you see the confirmation message, select **Yes**.

## To delete all geocaches

1. From the Geocaches Page, go to **MENU > Delete All Geocaches**.
2. On the Manage Memory screen, the **Delete All Geocaches** check box and **Delete Now** button are selected. Press **ENTER**.
3. When you see the confirmation message, select **Yes**.

## Geocaching

Out in the field, pick a geocache to start with and then use the PN-Series GPS geocaching features to navigate to, log, and write field notes for one or a series of geocaches.

## To navigate to a geocache

Navigate from your current location to the first geocache on your list. Once you log your find, the PN-Series GPS finds the next geocache for you. Routes to geocaches are not saved on the device.

1. On the geocache details page for the first geocache on your Not Logged list, select **Route**.
2. Select **Hike** or **Drive**.

The route calculates and the Map Page displays in navigation mode.

3. Navigate to the geocache.
4. When you are ready to log the geocache, go to **MENU > Log Your Geocache Find**. See *To log a geocache*.
5. Write a field note or leave the default information and select Done. See *To write a field note*.
6. On the Next Geocache screen, select an option:
  - » **Find Next Closest**—View the details page for the next geocache and go back to step 1.
  - » **View List**—View the Not Logged list and pick your own geocache.
  - » **Stop Geocaching**—Stop navigating and geocaching.

## To log a geocache

When navigating, you can log a geocache from the Map, Compass, Trip Info, or Directions pages. You can also log a geocache at any time from its details page.

1. Go to **MENU > Log Your Geocache Find**.
2. Select the log option: **Found It!**, **Didn't Find It**, **Write Note**, and **Needs Maintenance**. Any of these actions changes the geocache symbol to the one on the button you choose and moves the geocache to the Show Logged list.
3. Write a field note or leave the default information and select **Done**. See *To write a field note*.



*Log Your Geocache option*

## To write a field note

When you log a geocache with a cache id, you can write a field note that you can later upload to Geocaching.com.

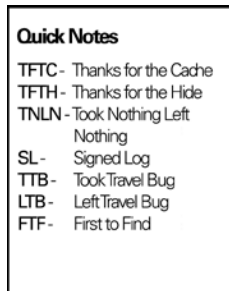
1. Log a geocache.
2. On the Field Notes page, you can use one or all of the fields to create a field note:
  - » **Quick Notes**—This drop-down list includes a list of acronyms used by geocachers for logging caches. See the Quick Notes box for a list of what the acronyms mean. Select the note from the drop-down list and then select **Add**. You can add multiple quick notes.
  - » **Your Notes**—To add your own notes, highlight the comment area and press **ENTER**.
  - » **Signature**—At the bottom of the screen, you can

enter a 2-line signature. Highlight **Enter signature text** and press **ENTER** to open the keyboard. Ensure the **Include Signature** check box is selected to automatically add your signature to all field notes that you create.

3. Select **Done**.



*Field Notes page*



*Quick Notes*

## To view field notes

From the Geocaches Page, go to **MENU > View Field Notes** to see a list of the caches for which you added a field note.

## To upload field notes

For geocaches with a cache ID, you can use the Geocaching.com Field Notes option to upload field notes from your PN-Series GPS to your computer.

1. Connect your PN-Series GPS to your computer.
2. On the Connect to Computer page, select **Data**

**Exchange.**

OR

Go to **MENU > Device Setup > Connect to Computer > USB Setting** and select **Data Exchange**.

3. From the Geocaches Page, go to **MENU > Upload Field Notes**.
4. On Geocaching.com, locate the DeLorme Earthmate PN-Series GPS Field Notes page (Field Notes are under your profile).
5. Click the **Browse** button on the web page and go to your device's internal drive (EM\_USERMAPS).
6. Select the file named "FieldNotes.txt" and click the **Upload** button on the web page to upload your field notes.
7. Once you upload your file, use your computer to delete it from your device. If you don't, new notes will be added to the same file.
8. On your device, press the **ENTER** button to return to normal GPS use.

**Mac Users** Manually eject the EM\_USERMAPS drive before you press **ENTER**; if you do not, the drive is forcefully ejected and could harm both the device and disrupt other USB drives connected to the computer.

**Tip** *With Cache Register, field notes are automatically uploaded to Geocaching.com when you synchronize your PN-Series GPS.*



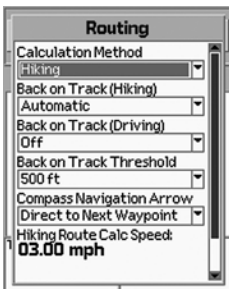
# The Routes Page

The Routes Page displays a list of routes on the PN-Series GPS—routes you have created on the device and routes you have sent to the device using a DeLorme mapping application. Using DeLorme Topo USA® or XMap® to create pre-planned routes in advance on the desktop for transfer to the PN-Series GPS lets you make sure to take exactly the road route you want and is also the best way to create long routes.

To open the Routes Page, from any page go to **MENU > Routes**. If you have added the Routes Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Routes Page



Edit Route Settings

In the routes list, hiking (direct) routes have a straight yellow line icon and driving routes have a curved blue line icon. The active route name appears in bold text.

## Edit Route Settings

Use route settings to determine the route calculation method, back on track options, and hiking route options.

From the Routes Page, go to **MENU > Edit Route Settings**.

Select the route setting options.

- ▶ **Calculation Method**—Determines the option (Hike or Drive) that is enabled when you create a route and is the default method when viewing a route that has not been calculated. Select **Hiking** or **Driving**.
- ▶ **Back on Track (Hiking) / Back on Track (Driving)**—Sets the option for informing you that you are off course and showing the way back to the route. When the route recalculates, the route highlight is cleared from the start to the current GPS location. The original route is not modified; you can select it again to restore

it. For either Hiking or Driving, select **Off** if you do not want to use the Back on Track feature.

» **Hiking**—Select **Automatic** to continuously recalculate from the current GPS location to the next stop in the route. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore.

**Note** For trail routes sent to your device from Topo USA or XMap, select **Off** so that the trail route does not recalculate—if it recalculates, the shape of the route is lost.

» **Driving**—Select **Automatic** to recalculate from the threshold specified in the Back on Track Threshold option. Select **Prompt** to alert you when you are off track; you can then choose to recalculate or ignore. Select **Off** if you do not want to use Back on Track.

► **Back on Track Threshold**—For driving routes, sets the distance threshold for initiating a back on track calculation. Select a distance from the drop-down list. A large value prevents excessive prompts, while a small value recalculates as soon as you are off the route.

► **Compass Navigation Arrow**—In the event you go off your route when navigating a hiking route, you

can choose to have the bearing arrow point to the next waypoint in your route (best when trying to get to the next waypoint by the shortest distance) or point back to the route (best if you want to follow a specific path). Select **Direct to Next Waypoint** or **Back on Course** from the drop-down list.

► **Hiking Route Calc Speed**—The walking speed that the device uses to calculate a walking route. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

To restore the default settings for all options, select **Restore Defaults**.

## Create a Route

From the Routes Page, you can create a route to one point or to multiple points from your current GPS position or another location. At any time when viewing a geocache, waypoint, or a Find search result, you can create a route to it using the **Route** option on its details page.

### To create a route from the current position

Current Position is the default start point for a route; this is the current GPS location or the map cursor location when panning the map or viewing another location. Once you create a route, you can navigate with it or view it on the map.

1. On the Routes Page, select **New**.
2. To use the default route name—the last point you add to your route—go to step 3.  
OR  
To add a name for your route, highlight the **Route Name** field, press **ENTER** and use the keyboard to make changes. When you are finished editing, press **ENTER**. The route name will not change when you add points.
3. Ensure **Add Point** is highlighted and press **ENTER**.
4. Select the method for adding the point.
  - » **Use Find**—Opens the Find Page. Search for the point you want to add; from the search result details page, select **Add**.
  - » **Use Map**—Opens the Map Page. Pan the map to the location you want to add and press **ENTER**. You can add multiple points while panning. Press **QUIT**.
5. Repeat step 4 for each point in the route.
6. Select **Navigate** or **View**.  
**Note** To save the route without navigating or viewing it, press **QUIT**. The route is saved using the type selected in the **Calculation Method** drop-down list in the route settings.
7. Select the route method; **Hike** or **Drive**. The route calculates and displays on the map.

If you selected **Navigate**, the device is in navigation mode. If you selected **View**:

- » To hide the route, go to **MENU > Hide Route** press **QUIT** to return to the route details page, and then select **Hide**.
- » To begin navigating, press **QUIT** to return to the route details page and select **Navigate**.

**Tip** When you create a direct route from your current GPS location to a single point and navigate to it, the route is automatically deleted once you stop navigating.

## To move, remove, or view details for route points

As you add points to a route, you can view its details, change its order in the route, or remove it from the route.

Highlight the point and press **ENTER**; then select an option.

- **Details**—The details page for the point displays.
  - » Select **Mark** to create a waypoint for the point; you can edit the information. For more information see *To edit waypoint details* on page 38.
  - » Select **View** to view it on the map (press **QUIT** to return to the route point details page).
- **Move**—Enables the point in the list; use the arrow keypad to move the point up or down in the list order, and then press **ENTER**.

- ▶ **Remove**—Removes the point from the list. For example, you can remove the Current Position field if you don't want to include it in your route.

## Manage Routes

### To view route details

On the Routes Page, select a route to open its details page. If the route name is in bold text, it is displaying on the map.

### To navigate with or view a saved route on the map

1. From the route details page, select **Navigate** or **View**.
2. If the route has never been calculated, select **Hike** or **Drive**. The route displays on the map.

If you selected **Navigate**, the device is in navigation mode.

If you selected **View**:

- » To hide the route, go to **MENU > Hide Route** or press **QUIT** to return to the route details page, and then select **Hide**.
- » To begin navigating, press **QUIT** to return to the route details page and select **Navigate**.

### To reverse a route

From the route details page, go to **MENU > Reverse Route**. Then, on the route details page select **Navigate** or **View**.

## To simulate navigation

When you simulate navigation, track recording is turned off.

From the route details page, go to **MENU > Simulate Navigation**. When you see the Simulate Navigation message, select **OK**. The Map Page opens and simulates the route. You can access the following settings from any default page except the Satellites Page.

- ▶ To change the simulation speed, go to **MENU > Simulation Speed** and then select a speed.
- ▶ To stop simulation, go to **MENU > Stop Simulation**.

### To delete a route

From the route details page, go to **MENU > Delete Route**. When you see the confirmation message, select **Yes**.

### To delete all routes

This deletes all routes; to delete a specific route, view the route details page.

1. From the Routes Page, go to **MENU > Delete All Routes**.
2. On the Manage Memory screen, the **Delete All Routes** check box and **Delete Now** button are selected. Press **ENTER**.
3. When you see the confirmation message, select **Yes**.

## Directions Page

When you are navigating a route, the Directions page is available in the default **PAGE** button sequence (after the Trip Info Page). You can also view the Directions page for the active route from Routes Page by selecting **Directions**.



Directions

Press **MENU** from the Directions Page to access Route Options and geocaching options (see the next section).

You can also change the distance that is displayed for each step in the directions. The option you are using is not displayed; to change to the available option, select it.

- ▶ **Show Distance to Finish**—The distance from the step to the end of the route.
- ▶ **Show Distance to Next Turn**—The distance from one step to the next step.

## Other Menu Options

When navigating, additional options are available on the Routes Page menu.

### View Comment Details

When navigating to a waypoint or geocache, the View Comment Details option allows you to quickly view the comment for the waypoint or geocache.

**Note** View Comment Details displays the most recent comment details viewed.

Go to **MENU > View Comment Details**.

### Log Your Geocache Find

When navigating to a geocache, use this option to quickly log geocaches, write field notes, and pick a route to your next cache. For more information about these features, see *The Geocaches Page* section starting on page 40.

### Route Options

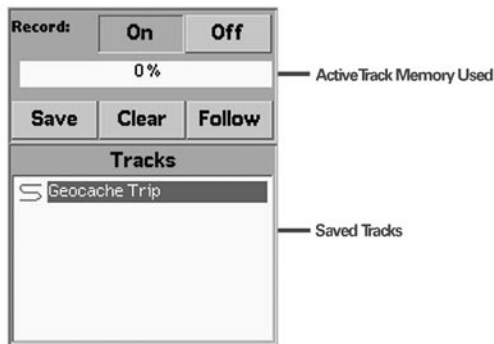
When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Edit Route Settings* on page 47.

From the Map Page, go to **MENU > Route Options** and select **Stop Navigating**, **Back on Track**, or **Switch to Hiking/Driving** (the option you can switch to displays).

# The Tracks Page

The Tracks Page displays a log of tracks on the PN-Series GPS—tracks recorded by the device or tracks you have sent to the device using a DeLorme mapping application. When you are viewing a track on the map, it appears in bold text on the track log list.

To open the Tracks Page, from any page go to **MENU > Tracks**. If you have added the Tracks Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Tracks Page

## Track Points

Your PN-Series GPS records a track—or breadcrumb trail—made up of points of your travels. Use the tracks page to turn recording on or off and to manage your tracks; you can save up to ten track logs in addition to your active track; each track can have up to 10,000 track points. Track recording must be turned on for a track to show on the map.

The appearance of the active track on the map is based on your GPS status.

- ▶ **3-D fix**—Green line
- ▶ **2-D fix**—Yellow line
- ▶ **No fix or GPS is disabled**—No points are placed on the map. Points resume once a 2-D or 3-D fix is established.

**Note** You can view the active track and one saved track on the map at the same time.

## Edit Track Settings

Use track settings to determine the method for recording track points (by time or by distance), to set the recording interval, to tell the device what to do when a track is full, and to enable or disable the Reset Info options when you save a track.



Edit Track Settings

From the Tracks Page, go to **MENU > Edit Track Settings**.

Select the track setting options. For logging points, a short time interval gives you the most detailed results but quickly adds many points; logging by distance gives you a longer recording time.

- ▶ **Record points by**—The logging type; select **Time** or **Distance** from the drop-down list.
- ▶ **Recording interval**—This is based on the recording type. Select the point interval from the drop-down list.
- ▶ **When track is full**—Determines what the device does when the maximum number of points is reached.
  - » **Overwrite Points**—The oldest points on the track are replaced with new points.
  - » **Stop Recording**—The device stops recording.

- » **Start Recording a New Track**—The device saves the track and starts recording a new track.

- ▶ **Prompt to Reset Trip Info**—Enables or disables the Reset Info page; this synchronizes the track with the Trip Info. When enabled, it displays when you clear or save an active track.

To restore the default settings for all options, select **Restore Defaults**.

## Manage Tracks

### To record the active track

To turn track recording on, select **On**. To turn it off again, select **Off**. The selected button looks indented and the text is white (the text on the selected button is black when using the Midnight display option).

### To clear the active track

To clear the active track and start recording a new track, select **Clear**. If the Reset Info page is enabled, edit the check boxes and select **Reset Info**, or press **QUIT** to exit the page.

### To follow the active track

To follow the active track back to your starting point, select **Follow**. The device creates a route and the Map Page opens in navigation mode. The active track is unchanged and continues recording a track back to the start.

## To save the active track

1. Select **Save**.
2. If the Reset Info page is enabled, edit the check boxes and select **Reset Info**, or press **QUIT** to exit the page.
3. On the track details page, you can edit the **Track** (name), **Color**, and **Comments** fields.

To edit a field, press **ENTER** and use the available option (drop-down list, arrow keypad, or keyboard) to make changes. When you are finished editing, press **ENTER**.

## To view track details

On the Tracks Page, select a track log to open its details page. If the track name is in bold text, it is displaying on the map.

Track	
<b>Geocache Trip</b>	
Color 	Time/Date <b>11:36 AM</b> <b>11-Apr-09</b>
Distance <b>2.32</b> mi	Trip Time <b>01:39:07</b>
Comments	
<div><div>View</div><div>Follow</div><div>Delete</div></div>	

Track Details

## To view or hide a saved track on the map

On the track details page, select **View**. The track displays on the map using the color in the **Color** field. If you look at the Tracks Page again, the track you are viewing is in bold text.

To hide a track on the map, on the track details page, select **Hide**.

## To follow a saved track

To follow a track a saved track, from the tracks details page, select **Follow**. The device creates a route and the Map Page opens in navigation mode. The track remains on the Tracks Page.

## To play back a track

When you play back a track, track recording is turned off.

From the track details page, go to **MENU > Start Track Playback**. When you see the Track Playback message, select **OK**. The Map Page opens and simulates following the track. You can access the following settings from any default page except the Satellites Page.

- ▶ To change the track playback speed, go to **MENU > Playback Speed** and then select a speed.
- ▶ To stop track playback, go to **MENU > Stop Track Playback**.



## To delete a saved track

On the track details page, select **Delete**.

## To delete all saved tracks

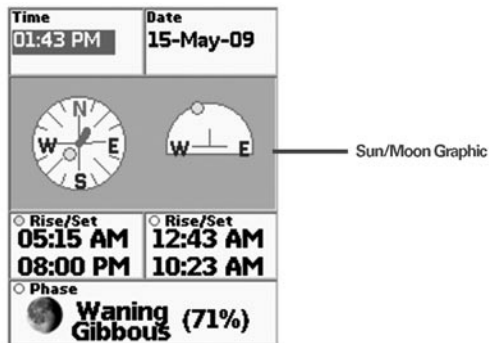
This deletes all saved tracks; to delete a specific track, view the track details page.

1. From the Tracks Page, go to **MENU > Delete All Tracks**.
2. On the Manage Memory screen, the **Delete All Tracks** check box and **Delete Now** button are selected.  
Press **ENTER**.
3. When you see the confirmation message, select **Yes**.

# The Sun/Moon Page

Use the Sun/Moon Page to view the sunrise/sunset and moonrise/moonset information and the moon phase information for a specific date and location.

To open the Sun/Moon Page, from any page go to **MENU** > **Sun/Moon**. If you have added the Sun/Moon Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



Sun/Moon Page

## To view sun/moon information

The sun/moon information is based on the time, date, and location settings.

## Sun/Moon graphic

The sun/moon graphic is in the center of the page. The graphic on the left shows the current position of the sun/moon in relation to a compass. The graphic on the right shows where the sun/moon is currently as it moves overhead from east to west.

## Rise/Set

The Rise/Set fields display the time that both the sun (left) and moon (right) will rise and set. The rise time is on the top. If the sun or moon does not rise or set on a specific date, dashes (-) display in the applicable information fields.

## Moon Phase

The Phase field displays the name of the current moon phase, the percentage completed if it's waxing or waning, and a graphic representation of the phase.

## To change the location

If you want to see sun/moon information for a location other than your current GPS location, pan the map or change the map center (for example, view a waypoint or a search result on the map).

From the Map Page, go to **Device Setup > Sun/Moon** and view the page.

## To change the time and date

You can change the time and date to see different sun/moon information. Changing the time and date on the Sun/Moon Page does not change the time and date on the device.

1. Highlight the field you want to edit (**Time** or **Date**).
2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

## To reset the time and date

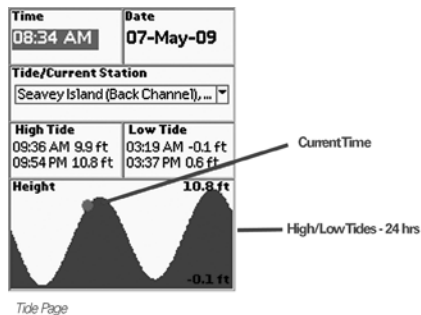
If you change the time and date on the Sun/Moon Page, you can reset it to the device's time and date.

From the Sun/Moon Page, go to **MENU > Reset Time/Date**.

# The Tide Page

Use the Tide Page to view tide (for oceans) or current (for tidal rivers) information for a specific time, date, tide station, and location.

To open the Tide Page, from any page go to **MENU > Tide**. If you have added the Tide Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.



## To view tide/current information

The fields in the middle of the screen (above the graph) display the high/low tide (ocean) or maximum ebb/

minimum flood current (tidal river) based on the current time, date, and location.

The graph at the bottom of the screen shows the tide/current information for a 24-hour period. The red dot in the graph represents the Time field.

## To change the location

If you want to see tide information for a location other than your current GPS location, pan the map or change the map center (for example, view a waypoint or a search result on the map).

From the Map Page, go to **Device Setup > Tide** and view the page—the information for the closest tide station displays and the ten tide stations closest to the map location are available in the Tide/Current Station drop-down list.

## To change the tide station

The ten stations closest to the current map location are available in the Tide/Current Station drop-down list.

## To change the time and date

You can change the time and date to see tide or current

information. Changing the time and date on the Tide Page does not change the time and date on the device.

1. Highlight the field you want to edit (**Time** or **Date**).
2. Press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

### **To reset the time and date**

If you change the time and date on the Tide Page, you can reset it to the device's time and date.

From the Tide Page, go to **MENU > Reset Time/Date**.

# The Hunt/Fish Page

Use the Hunt/Fish page to view a prediction of the hunting and fishing conditions for a specific day and location. The page has six information fields; Time, Date, Coordinates, Prediction, Best Times, and Good Times.

To open the Hunt/Fish Page, from any page go to **MENU > Hunt/Fish**. If you have added the Hunt/Fish Page to the **PAGE** button order, it is no longer available on menus. Press the **PAGE** button until it appears.

Time	Date
06:04 AM	15-May-09
Coordinates: Lat/Lon	
N 43°48.3481'	
W 70° 9.8328'	
Prediction	
Average Day	
Best Times	
04:33 AM - 06:33 AM	
04:46 PM - 06:46 PM	
Good Times	
11:09 AM - 12:09 PM	
11:32 PM - 12:32 AM	

Hunt/Fish Page

## To change the location

If you want to see the hunting/fishing prediction for a

location other than your current GPS location, pan the map or change the map center (for example, view a waypoint or a search result on the map).

From the Map Page, go to **Device Setup > Hunt/Fish** and view the page—your coordinates are for the location of the map cursor.

## To change the date

You can change the date to see a prediction of the hunting and fishing conditions for a specific day. Changing the date on the Hunt/Fish Page does not change the date on the device.

From any page (to use your GPS location), or from the Map Page (to use the map cursor location), go to **MENU > Device Setup > Hunt/Fish**.

The Date field is highlighted; press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.

## To reset the date

If you change the date on the Hunt/Fish Page, you can reset it to the device's date.

From the Hunt/Fish Page, go to **MENU > Reset Date**.

**Tip** *Navionics SD card lake and marine charts are compatible with your PN-Series GPS. For more information, visit our website at [www.delorme.com](http://www.delorme.com).*

# The Device Setup Page

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To open the Device Setup Page, from any page go to **MENU > Device Setup**. If you have added the Device Setup Page to the **PAGE** button sequence, it is no longer available on menus. Press the PAGE button until it appears.

Use the Device Setup Page options to modify the default settings on the PN-Series GPS. You can also view and manage internal and SD card memory use and restore the device's default system settings.

## System

Use the System options to modify GPS/WAAS settings, select the battery type, enable/disable USB power, and view and manage memory information.

### To change system settings

From any page, go to **MENU > Device Setup > System**

Use the drop-down lists to select system settings.

#### ► GPS Settings

- » **Normal**—Normal GPS use.
- » **Power Saving**—Turns off backlight after 15 seconds and reduces processor speeds.

- » **Disable GPS**—Turns off GPS satellite tracking. See *To disable GPS* on page 13.
- » **Demo Mode**—Enables Demo Mode. See *To view or hide Demo Mode* on page 4.
- **WAAS**—Select **Enabled** or **Disabled**. See *GPS and WAAS Status* on page 13.
- **Battery Type**—Select **Alkaline**, **Lithium**, **NiMH**, or **Li-ion (Rechargeable)**—use only DeLorme Li-ion batteries. See *Installing the Batteries* on page 2.
- **USB Power**—Select **Enabled** or **Disabled** to determine if the device can receive power from a computer USB port.

### To view memory use

You can view how much space is available on the device's internal memory or an SD card in the device.

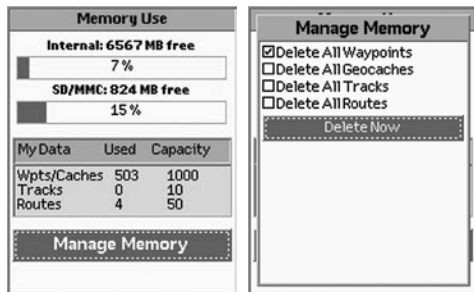
From any page, go to **MENU > Device Setup > System > Memory Use**.

You can view:

- Internal memory use
- SD card memory use



- ▶ The number of waypoints/geocaches, track, and routes stored on the internal memory.
- ▶ The device's total capacity for storing waypoints/geocaches, tracks, and routes.



Memory Use

Memory Management

## To manage memory

You can delete waypoints, geocaches, tracks, and routes from your device's internal memory.

1. From any page, go to **MENU > Device Setup > System > Memory Use > Manage Memory**.
2. Select the check box next to each data type you want to delete, highlight **Delete Now**, and press **ENTER**.

## To restore the default settings

To restore the default settings for all the System options, from any page go to **MENU > Device Setup > System > Restore Defaults**.

## Display

Use the Display options to update the device's color scheme and backlight settings.

### To modify the color scheme

From any page, go to **MENU > Device Setup > Display > Color Scheme** and select the color scheme from the drop-down list.

- ▶ **Spring** (green)
- ▶ **Summer** (yellow)
- ▶ **Autumn** (orange)
- ▶ **Winter** (blue)
- ▶ **Midnight** (high contrast—black/gray/dark blue; helpful for night use)

To automatically turn on the Midnight option at night, select the **Use Midnight at sunset** check box.

### To modify the backlight intensity

You can adjust the brightness of the screen backlight. Decrease the intensity to improve battery life.

From any page, go to **MENU > Device Setup > Display > Backlight Intensity**.

- ▶ To decrease the backlight intensity, move the slider to the left.
- ▶ To increase the intensity, move the slider to the right.

You can also access the backlight setting using the **Power**

button; see *Power* on page 6.

## To modify the backlight timer

Change how long the backlight remains on before it goes into power saving mode. Decrease the time interval to improve battery life.

From any page, go to **MENU > Device Setup > Display > Backlight Timer** and select the time interval from the drop-down list. There are four specific time options and an Always On option.

## To restore the default settings

To restore the default settings for all the Display options, from any page go to **MENU > Device Setup > Display > Restore Defaults**.

## Connect to Computer

Use the Connect to Computer options to set up the device to exchange information, transfer maps, and install firmware updates.

For detailed information about these settings, see *Connecting to a Computer* on page 72.

From any page, go to **MENU > Device Setup > Connect to Computer**.

- ▶ **Show Connect to Computer**—Select the check box to show the Connect to Computer screen when you

connect your device to your computer.

- ▶ **USB Setting**—From the drop-down list, select **Data Exchange**, **Transfer to SD Card**, **Transfer to Internal**, or **Firmware Transfer**.

## To restore the default settings

To restore the default settings for Connect to Computer options, from any page go to **MENU > Device Setup > Connect to Computer > Restore Defaults**.

## Compass and Altimeter

### *PN-40 only*

Use the Compass & Altimeter options on the Device Setup Page to enable/disable the electronic compass, the barometric altimeter, and the auto calibrate altimeter feature and to calibrate the electronic compass and the barometric altimeter.

For more information about the compass and altimeter, see the *Compass and Altimeter* section starting on page 72.

From any page, go to **MENU > Device Setup > Compass & Altimeter**.

Select the check box to enable the option.

- ▶ **Enable Electronic Compass**
- ▶ **Enable Barometric Altimeter**
- ▶ **Auto Calibrate Altimeter**

To calibrate the compass or altimeter, go to **MENU > Device Setup > Compass & Altimeter > Calibrate > Calibrate Compass** or **Calibrate Altimeter**.

### To restore the default settings

To restore the default settings for Compass and Altimeter options, from any page go to **MENU > Device Setup > Compass & Altimeter > Restore Defaults**.

## Sound

The Sound options control sounds and volume.

### To modify the sound settings

From any page, go to **MENU > Device Setup > Sound**.

Use the drop-down lists to select the various available sound settings or turn the sound off.

- ▶ **Button Press**
- ▶ **Message**
- ▶ **Power**
- ▶ **Turn Alert**

### To modify the volume of all sounds

You can adjust the volume of all sounds.

From any page, go to **MENU > Device Setup > Sounds > Volume**.

- ▶ To decrease the sound, move the slider to the left.
- ▶ To increase the sound, move the slider to the right.

To mute the sound, select the **Mute** check box. This does not mute the warning sound when power is critically low or the compass calibration sounds.

### To restore the default settings

To restore the default settings for Sound options, from any page go to **MENU > Device Setup > Sound > Restore Defaults**.

## Time

Use the Time options to modify the device's time format, time zone, and Daylight Saving Time preferences.

### To modify the time settings

From any page, go to **MENU > Device Setup > Time**.

Use the drop-down lists to select the time settings.

- ▶ **Time Format**—Select **Local 12 hr** or **Local 24 hr**.
- ▶ **Zone**—Select your actual time zone or select **Automatic** to allow the device to update the time based on your GPS location.

To enable the Daylight Saving option, select the **Daylight Saving** check box.

### To restore the default settings

To restore the default settings, from any page go to **MENU > Device Setup > Time > Restore Defaults**.

## Units

Use the Units option to set the various units of measure used on the device.

### To modify the units settings

From any page, go to **MENU > Device Setup > Units**.

Use the drop-down lists to select the various unit settings.

- ▶ **Coordinates: Primary**—Select **Degrees; Degrees, Minutes; Deg, Min, Sec; UTM/UPS; or USNG/MGRS**.
- ▶ **Datum: Primary**—Various. The default datum is WGS84.
- ▶ **Coordinates: Secondary**—Select **UTM/UPS; Degrees; Degrees, Minutes; Deg, Min, Sec; or USNG/MGRS**.
- ▶ **Datum: Secondary**—Various
- ▶ **Measures**—Select **Statute Miles, Kilometers, Nautical Miles/Feet, or Nautical Miles/Meters**.
- ▶ **Pressure**—PN-40 only. Select **Inches of Mercury, Millibars, or Pascals**.
- ▶ **Bearing**—Select **True or Magnetic**.

**Note** The Coordinates: Primary setting controls what the device displays on the map when the cursor moves. The Coordinates: Secondary field lets you pick a different setting to use in an info field.

### To restore the default settings

To restore the default settings for Units options, from any

page go to **MENU > Device Setup > Units > Restore Defaults**.

## Page Order

You can add or remove pages from the **PAGE** button order (you cannot remove the Map Page). When you add a page to the **PAGE** button order, it no longer appears in the menu list—you must press the **PAGE** button until that page displays. You can also change the order in which pages are displayed.



*Page Order options*

To modify the **PAGE** button order, from any page, go to **MENU > Device Setup > Page Order**.

- ▶ To add a page, select the check box next to it.
- ▶ To remove a page, clear the check box next to it.
- ▶ To change the page order, highlight the item you want

to move, then use the arrows on the right side of the screen to move the item up or down in the list.

### **To restore the default settings**

To restore the default settings for Page Order options, from any page go to **MENU > Device Setup > Page Order > Restore Defaults**.

## **Owner Information**

Use the Owner Information screen to enter text that identifies your device.

To enter owner information, from any page, go to **MENU > Device Setup > Owner Information** and edit the text area.

To display the information when you turn on your device, select the **Display Info at Startup** check box. The Owner Info screen displays after the Welcome screen.

## **About this Device**

To view the serial number for downloading maps and the build/version number for the device's firmware, from any page go to **MENU > Device Setup > About this Device**.

To view license information, highlight **License** and press **ENTER**.

## **Restore Setup Defaults**

To restore all of the settings in the Device Setup options at the same time, go to **MENU > Device Setup > Restore Setup Defaults**.

## **Reset to Factory Defaults**

To reset all the settings on your device to the "out-of-the-box" status and delete all tracks, routes, waypoints, etc., go to **MENU > Device Setup > Reset to Factory Defaults**. Maps you have added to the device will not be deleted.

# Info Fields Table

Info fields are used to provide information you need when using the PN-Series GPS. On the Map, Compass, and Trip Info Pages, you can customize the info fields. For more information, see *Info Fields* on page 9.

## Notes

- ▶ Info fields may be abbreviated on the screen; for example, Velocity Made Good is abbreviated as VMG.
- ▶ When information is unavailable, the info field contains dashes.

Info Field	Description
Back on Course	The direction of travel needed to return to the route while continuing in the direction of the destination. Expressed in degrees.
Battery Life	The percentage of battery power that remains.
Bearing	The direction of travel from the current location to the destination (finish or next stop). Expressed in degrees. A green arrow points in the direction of the next waypoint or route point. The arrow is 2-tone bright/dark green when the device is moving—solid green when no movement is detected.
Coordinates: Primary	The coordinates for the current GPS location, cursor position, or map center in the primary format. The default is Lat/Lon. Change the format in Device Setup > Units > Coordinates: Primary.
Coordinates: Secondary	The coordinates for the current GPS location, cursor position, or map center in the secondary format. The default is UTM/UPS. Change the format in Device Setup > Units > Coordinates: Secondary.

<b>Info Field</b>	<b>Description</b>
Course	The direction of travel on a route from the starting location to the destination (finish or next stop). Expressed in degrees.
Device Odometer	The total distance traveled in all trips.
Distance to Finish	The distance from the current location to the route finish.
Distance to Next Stop	The distance from the current location to the next stop in the route.
Distance to Next Turn	The distance from the current location to the next turn in the route.
Elevation: Altimeter <b>PN-40 Only</b>	The altitude (height) above or below sea level based on the barometric altimeter reading. If the altimeter is calibrating, a red exclamation point displays. If the altimeter is disabled, dashes display.
Elevation: GPS	The altitude (height) above or below sea level based on the GPS reading.
Elevation: Maximum	The maximum elevation achieved. Expressed in distance. Can be reset when you clear Trip Info.
Elevation: Minimum	The minimum elevation achieved. Expressed in distance. Can be reset when you clear Trip Info.
ETA at Finish	The estimated time of arrival at the route finish. Expressed as hours:minutes AM/PM, based on the current device time.
ETA at Next Turn	The estimated time of arrival at the next turn in the route. Expressed as hours:minutes AM/PM, based on the current device time.
ETA at Next Stop	The estimated time of arrival at the next stop in the route. Expressed as hours:minutes AM/PM, based on the current device time.
Finish	The Finish label as it appears in the route directions.
GPS Accuracy	The calculated accuracy of the GPS. Expressed in distance.
GPS Status	The current status of your GPS device. No Fix, 2-D, or 3-D. A W below the status indicates a WAAS fix.

Info Field	Description
Heading	The current direction of travel. Expressed in degrees. <b>PN-40 Only:</b> If electronic compass accuracy is poor, a red exclamation point displays.
Moonrise/Moonset	The time of day at which the moon will rise and set. Expressed as hours:minutes AM/PM. This information is calculated for the specific geographic area where the GPS has a 3-D fix.
Next Stop	The label for the next stop as it appears in the route directions.
Next Turn	The label for the next turn as it appears in the route directions. Also displays an arrow showing the direction of the turn/route direction information.
Next Turn Arrow	The arrow representing the next turn as it appears in the route directions. No label text displays.
Off Course	The perpendicular distance between the current location and the route. Expressed in distance.
Pressure: Ambient <b>PN-40 Only</b>	The surrounding barometric pressure reading. Set the unit type in Device Setup > Units > Pressure.
Speed	The current rate of travel for the device. Expressed in distance per unit of time.
Speed: Average	The average speed of the device including stop time. Expressed in distance per unit of time. Can be reset when you clear Trip Info.
Speed: Maximum	The maximum speed achieved. Expressed in distance per unit of time. Can be reset when you clear Trip Info.
Speed: Moving Average	The average speed of the device excluding stop time. Expressed in distance per unit of time. Can be reset when you clear Trip Info.
Sunrise/Sunset	The time of day at which the sun will rise and set, calculated for the specific geographic area where the GPS has a 3-D fix. Expressed as hours:minutes AM/PM.



<b>Info Field</b>	<b>Description</b>
Time/Date	Time of day and date based on current GPS location; accounts for Daylight Saving Time and time zone adjustments. Time is expressed as hours:minutes AM/PM and date is expressed as day-month-year (for example, 01-JUL-09).
Time to Finish	The calculated time to the route finish based on road classifications and default speed settings.
Time to Moonrise/set	The time remaining until the moon rises and sets, calculated for the specific geographic area where the GPS has a 3-D fix.
Time to Next Stop	The calculated time to the next stop in the route based on road classifications and default speed settings.
Time to Next Turn	The calculated time to the next turn in the route based on road classifications and default speed settings.
Time to Sunrise/set	The time remaining until the sun rises and sets, calculated for the specific geographic area where the GPS has a 3-D fix.
Trip: Odometer	The total distance the GPS device has been moving. This information Can be reset when you clear Trip Info.
Trip: Time Moving	Total time GPS device has been moving. Can be reset when clearing Trip Info.
Trip: Time Stopped	The total time the GPS has been tracking but not moving. Can be reset when you clear Trip Info.
Trip: Time Total	The total time the GPS has been tracking, both moving and stopped. Can be reset when you clear Trip Info.
Velocity Made Good	The component of the current speed that is in the direction of the route destination. Expressed in distance per unit of time.
Vertical Speed	The current rate of vertical travel for the device. Expressed in distance per unit of time.

# Additional Information

## Connecting to a Computer

When you connect your PN-Series GPS to your computer with the USB cable, the device's USB setting should match the task you are performing. You can change the USB setting from the Connect to Computer page or from the Device Setup > Connect to Computer option.

### Connect to Computer Page

To allow the Connect to Computer page to show when you plug your PN-Series GPS into your computer, you must disable Demo Mode. For more information, see *To view or hide Demo Mode* on page 4.



Connect to Computer

When you connect your PN-Series GPS to your computer and turn it on, the Connect to Computer page displays (when Demo Mode is disabled). This allows you to select the correct option for transferring information between your mapping application and your device. If you do not want to see this page when you connect your device to your computer, go to **MENU > Device Setup > Connect to Computer** and clear the **Show Connect to Computer** check box; for more information, see page 71.

You can access the Connect to Computer options at any time from the Device Setup Page; for more information, see the next section, *Device Setup > Connect to Computer*.

### To exchange waypoints, geocaches, tracks, and routes

Select **Data Exchange** to transfer waypoints, geocaches, tracks, and routes to or from the device. This is the default transfer method, so you can transfer map packages, but it is not recommended as transfer will be much slower than using the map transfer method. (Mac and Linux users cannot use Data Exchange to transfer maps.)

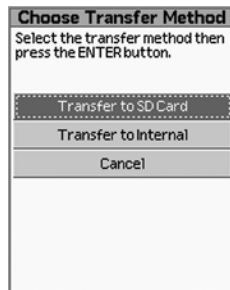
**Tip** For anything other than a map transfer or firmware transfer while it is connected to your computer, select **Data Exchange**. This includes using the PN-Series GPS as an external antenna with a laptop.

## To transfer maps

Use this option to transfer maps to or from the device's internal memory or to an SD card in the device (the device automatically creates a "maps" folder).

**Note** The fastest way to transfer maps to an SD card is to use an SD card reader in your computer.

1. Select **Map Transfer**.
2. Select **Transfer to Internal** or **Transfer to SD Card**.
3. When the Transfer Maps screen appears, set your device aside and use your mapping application to transfer the map.
4. When transfer is complete, press **ENTER** on the device to return to Data Exchange mode.



Map Transfer options

## Device Setup > Connect to Computer

Use the Connect to Computer option on the Device Setup Page to change the USB setting for data exchange, map transfer, and firmware update transfer. You can also determine if you want the Connect to Computer page to show when you connect your PN-Series GPS to your computer.



Device Setup >  
Connect to Computer

## To show or hide the Connect to Computer page on startup

From any page, go to **MENU > Device Setup > Connect to Computer** and select or clear the **Show Connect to Computer** check box.

## To change the USB Setting

When you are in normal operating (Data Exchange) mode, from any page, go to **MENU > Device Setup > Connect to Computer** and select an option.

- ▶ **Data Exchange**—Normal operation. Transfer waypoints, geocaches, tracks, and routes to the device's internal memory.
- ▶ **Transfer to SD Card**—Transfer maps to an SD card in the device.

- ▶ **Transfer to Internal**—Transfer maps to the device's internal memory.
- ▶ **Firmware Transfer**—Prepare the device to transfer a firmware update to an SD card in your device. Updates are available through the NetLink tab and the Technical Support section of the DeLorme website; they may also be included with DeLorme mapping software upgrades. Follow the firmware update installation instructions.

## Compass and Altimeter

### *PN-40 only*

The PN-40 comes equipped with two sensors; an electronic compass and a barometric altimeter

- ▶ The electronic compass works when the PN-40 is stationary or moving at less than 1.5 miles per hour. The compass readings calculated from GPS information are accurate only when the device is moving.
- ▶ The barometric altimeter uses the known elevation and barometric pressure to provide more accurate elevation readings than the calculated GPS elevation provides.

Changes in weather patterns and geographic locations can cause errors in sensor readings. Calibrating the sensors ensures that they record and display accurate data on the device and record accurate data in the track file.

The Calibrate menu option is available from the Satellite Page and the Compass Page, and the Device Setup > Compass & Altimeter option.

In addition, from the Device Setup > Compass & Altimeter menu, you can enable or disable the electronic compass, barometric altimeter, and the auto-calibrate barometer options or restore the default settings.

## Compass and Altimeter Settings

Use the Compass & Altimeter options on the Device Setup Page to enable/disable the electronic compass, the barometric altimeter and the auto-calibrate altimeter feature.



Device Setup > Compass & Altimeter

From any page, go to **MENU > Device Setup > Compass & Altimeter**.

Select the check box to enable the option.

- ▶ **Enable Electronic Compass**—If this is not selected, the device uses the GPS compass.
- ▶ **Enable Barometric Altimeter**—If this is not selected, the device uses the GPS elevation.
- ▶ **Auto Calibrate Altimeter**—Allows auto-calibration of the altimeter. See *Altimeter Calibration* for more information.

## To restore the default settings

To restore the default settings for the options above, from any page go to **MENU > Device Setup > Compass & Altimeter > Restore Defaults**.

## Compass Calibration

- ▶ Calibrate the electronic compass the first time you use the PN-40.
- ▶ Make sure you are outside and away from magnetic fields, such as vehicles and power lines, when you calibrate the compass.
- ▶ Calibrate when you change the batteries—batteries, even of the same type, have unique magnetic fields that affect the accuracy of the electronic compass.
- ▶ The device periodically checks the compass accuracy; if it is poor, “Poor Accuracy” appears in the bottom right corner of the Compass Page and a red exclamation point displays in the Heading info field.

If the warning does not go away, try calibrating the compass.

## To calibrate the compass

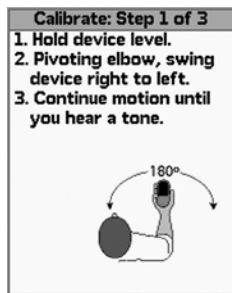
1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Compass.**

OR

From any page, go to **MENU > Device Setup > Compass & Altimeter > Calibrate > Calibrate Compass.**

2. Follow the on-screen instructions to calibrate the compass.

**Note** There are three steps in the calibration process.



Calibration step 1

## Altimeter Calibration

There are three options for calibrating the altimeter. By default, the device is set to auto-calibrate the altimeter using GPS elevation; however, manual calibration using the known elevation or barometric pressure provides greater accuracy.

Auto-calibration uses the average GPS elevation as a basis for the barometric elevation. The basis adjusts to take into account changes over time in the barometric pressure, unrelated to changes in elevation. As the elevation adjusts (typically in 2-3 minutes), "Calibrating" displays in the bottom right corner of the Satellites Page. If you are using the GPS: Altimeter info field on any page, it displays a red exclamation point.

Note that the unit settings used in the Known Elevation and Known Pressure fields are from the units set on your device. To change the units, go to **MENU > Device Setup > Units > Pressure.**



*Altimeter calibration*

3. If you selected Known Elevation or Known Pressure; to edit the field, press **ENTER** and use the arrow keypad to make changes. When you are finished editing, press **ENTER**.
4. Select **Calibrate**, and when you see the successful calibration message, press **ENTER**.

## To calibrate the altimeter

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Altimeter**.  
OR  
From any page, go to **MENU > Device Setup > Compass & Altimeter > Calibrate > Calibrate Altimeter**.
2. Select a calibration method.
  - » **Known Elevation**—The actual elevation at your location.
  - » **Known Pressure**—The barometric pressure (adjusted for sea level) for your location.
  - » **GPS Elevation**—The GPS elevation calculated by the device.

## Resources

You can find more information about using your PN-Series GPS on our website—[www.delorme.com](http://www.delorme.com).

While you're there, check out these additional resources:

- ▶ **Technical Support**
- ▶ **Forum**
- ▶ **GPS Blog**
- ▶ **PN-Series Wiki**

For fishermen and boaters

- ▶ **Navionics lake and marine charts**

For geocachers

- ▶ **Send to GPS Plugin**
- ▶ **Cache Register**

## DeLorme Contact Information

### Technical Support and Firmware Updates

Visit our Technical Support website at [www.delorme.com/support](http://www.delorme.com/support) to access the DeLorme Technical Support Knowledge Base, get answers to frequently asked questions, download firmware updates, and for additional support information.

If you cannot find an answer to your problem on the site, please call 207-846-8900 to speak to a Technical Support representative. Please note that DeLorme Technical

Support does not provide product training.

## Customer Service

For general questions about returns, order status, or problems with shipments, phone 800-511-2459 (Monday thru Friday) or e-mail us at [sales@delorme.com](mailto:sales@delorme.com).

## Direct Sales

To place additional orders, phone 800-561-5105.

## Specifications

### Physical Specifications

Case: IPX-7 waterproof, impact resistant

Size: 5.25" x 2.43" x 1.5"

Weight: 5.35 oz.

Technical Specifications

## Technical Specifications

### Hardware

- ▶ Super high-sensitivity 32-channel Cartesio chipset by STMicroelectronics
- ▶ Dual-core processor
- ▶ WAAS-enabled; position accuracy < 3 meters
- ▶ Cold start: < 1 minute; warm start: < 45 seconds; hot start: 5-6 seconds
- ▶ Maximum Velocity: 1000 knots
- ▶ Advanced high-sensitivity tracking algorithms



- ▶ Weak signal tracking down to -159dBm
- ▶ Proprietary Kalman filter for enhanced position accuracy
- ▶ Superior noise rejection for high EMI environments
- ▶ Operating temperature range -20 °C to +75 °C
- ▶ Storage temperature range -45 °C to +100 °C
- ▶ Built-in antenna
- ▶ Sharp high-resolution 2.2" Transflective TFT color display (220 x 176 pixels)
- ▶ Audio: Button presses, directions, and alerts.
- ▶ Map and User Data
- ▶ Detailed U.S. base map data with secondary and connector roads along with major highways and roads for the entire world
- ▶ Holds up to 10 tracks (10,000 points per track), 1,000 user waypoints, and 50 routes

#### ***PN-40 Only***

- ▶ 3-axis electronic compass with accelerometer
- ▶ Barometric altimeter

#### **Power and Memory**

- ▶ Power (without SD card): Full power: 600mW typical (690mW with full backlight); Power save: < 350mW
- ▶ Fast USB 2.0 data transfer
- ▶ 500 MB available internal flash memory (SE model: 7 GB available internal flash memory)

- ▶ Supports SD and SDHC memory cards; up to 32 GB
- ▶ Uses 2 AA batteries or a DeLorme Li-Ion rechargeable battery

#### **FCC Certification**

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 generates, uses, and 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 receiving antenna.
- ▶ Increase the separation between the equipment and the receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

## Cautions and Warnings

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

### FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

**CAUTION** Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended. Dispose of used batteries according to the manufacturer's instructions.

**WARNING** Do not damage the rechargeable Lithium-ion battery. A damaged battery can cause an explosion or fire, and can result in personal injury and/or property damage.

### Limited Warranty

DeLorme warrants that your Earthmate PN-Series GPS will be free from defects in materials and workmanship for 1 year from the date of purchase. If your Earthmate PN-Series GPS fails in normal use, DeLorme will, at its sole option, either repair or replace the unit. DeLorme reserves the right to either repair or replace the unit with a new or refurbished unit at its sole discretion.

Such repairs or replacements will be made at no charge for labor or materials; however, the customer will be responsible for any shipping charges incurred to send the device to DeLorme. The repaired or replaced product will be warranted for 90 days from the date of return shipment, or for the balance of the original warranty, whichever is longer. This warranty does not cover failures due to abuse, misuse, accidents, or unauthorized disassembly or modification. Any repairs not performed by DeLorme will void this warranty.

DELORME DISCLAIMS ANY LIABILITY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF REVENUES OR PROFITS, EVEN IF DELORME HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS LIMITED WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY AND ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, SHALL LAST FOR 1 YEAR.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of relief such as incidental or consequential damages, or limitations on how long an implied warranty lasts, so the

above limitations or exclusions may not apply to you.

This warranty applies to the original purchaser of the product ONLY.

**REMINDER** Be sure to retain the sales receipt proving the date of your original purchase. This will be needed if warranty service is ever required. DeLorme reserves the right to refuse warranty if a receipt is not provided or if the receipt is incomplete/illegible.

## Service Plan

Before a product can be returned, you must contact DeLorme Support at 207-846-8900 to determine if a return is necessary and request a Return Material Authorization (RMA) tracking number.

- ▶ The following information must be provided to obtain warranty service:
- ▶ A copy of the sales receipt from the original retailer
- ▶ The serial number of the Earthmate PN-40 or PN-30
- ▶ The Return Material Authorization (RMA) tracking number that you received when you called DeLorme Support
- ▶ Your return shipping address
- ▶ Your daytime telephone number

If you have contacted DeLorme Support and have been instructed to send the device in for warranty service, send the unit to:

DeLorme Earthmate PN-Series  
Service Department  
2 DeLorme Drive  
Yarmouth, ME 04096 USA

For the latest warranty and repair information, visit [www.delorme.com/gpsrepair](http://www.delorme.com/gpsrepair).

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## **Batteries**

The Earthmate® PN-40 can be powered by two AA batteries (NiMH, alkaline, or lithium), or a DeLorme-supplied Li-Ion rechargeable battery. You'll find Earthmate PN-Series accessories at [www.delorme.com](http://www.delorme.com).

### **Rechargeable Lithium-Ion Battery Pack Caution**

Use only an Earthmate PN-Series Battery Type. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.





## **We Bring Technology Down to Earth™**

Since its incorporation in 1976, DeLorme has developed an unprecedented reputation as a leader in the mapping industry. From early beginnings as a paper atlas publisher, the company quickly emerged as a pioneering technological innovator. DeLorme not only embraced new technologies, it developed them.

In the mid-1990s, before GPS usage was widespread, DeLorme was pioneering laptop GPS solutions that today include the popular Earthmate GPS LT-40. Subsequent development led to industry-first GPS solutions for Pocket PC and Palm OS devices and more recently for Bluetooth GPS solutions.

**For more information, visit [www.delorme.com](http://www.delorme.com).**