



# Earthmate<sup>®</sup> PN-60 GPS

User Manual



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## **SPOT Satellite Communicator Account & Subscription Information**

Visit the SPOT website to sign up and manage your account and learn more about the SPOT Satellite Communicator. [www.findmespot.com](http://www.findmespot.com)

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# Introduction

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This manual is for use with DeLorme Earthmate® PN-60/PN-60w GPS and SPOT Satellite Communicator devices. **Note** References to "PN-60" include both devices unless otherwise indicated.

## Welcome

The Earthmate PN-60/60w is a complete out-of-the-box handheld GPS solution for all your outdoor activities.

- ▶ Navigate worry-free with included topo maps of the U.S. and Canada.
- ▶ Add high-resolution aerial imagery for a unique GPS experience.
- ▶ Enjoy next-generation GPS features and performance.

If you purchased a PN-60w, the addition of a SPOT Communicator gives you and your loved ones peace of mind.

- ▶ Notify the GEOS International Emergency Rescue Coordination Center of your GPS location.
- ▶ Send for assistance in time of need—around the world.
- ▶ Be completely independent of mobile phone or other land-based radio coverage.

## Getting Started

See the *Quick Start Guide* for detailed information on setting up your PN-60 and, if included, your SPOT Communicator.

## How to Use the Manual

When the manual instructs you to do something, use these actions on the PN-60:

- ▶ 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 10.
  - » 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, highlight it and press **ENTER**.
- ▶ When 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.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# Using the PN-60

For information on setting up your device for the first time, see the *Quick Start Guide*.

## Batteries and SD Card

- ▶ Use two AA batteries (Lithium is recommended; you can also use NiMH or alkaline) or a DeLorme rechargeable Lithium-ion (Li-ion) battery.
- ▶ When the PN-60 is using battery power, the battery indicator on the Home Page displays the percentage of battery life remaining.
- ▶ Remove the batteries when storing the PN-60 for a month or longer.
- ▶ A slot for an SD card (not included) is underneath the batteries inside the battery compartment. SD/SDHC/MMC cards up to 32GB are supported.

## 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 the batteries according to the polarity symbols inside the battery compartment.
4. Replace the back cover and screw in the D-rings.

## To check the battery type

After you install the batteries, go to **Settings > System > Battery Type** and make sure 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 Home Page; for more information, see *The Home Page* section on page 16.

## To charge a DeLorme Li-ion battery in the PN-60

1. Install the battery in the device.
2. To leave the device powered on while charging, power it on and connect the USB cable to the computer. On the Home Page, the battery indicator displays a plug.  
OR  
To put the device in charging mode, power it off, connect the USB cable to the computer, and then quickly press **Power**. The light indicator below the




bottom left corner of the screen flashes red. When the device is fully charged, the light is green.

## To improve battery life

- ▶ Automatically turn off the backlight after 15 seconds; go to **Settings > Display > Backlight Timer > 15 sec.**
- ▶ Use the power saving option; go to **Settings > System > GPS Setting > Power Saving**. For more information, see **To change system settings** on page 79.
- ▶ Turn off the GPS receiver when inside. Go to **Settings > System > GPS Setting > Off**  
OR  
from the Satellites Page, go to **MENU > Turn Off GPS**.
- ▶ Use batteries with higher milliamp-hour (mAh) ratings, such as Energizer® Ultimate Lithium.

## Turning the PN-60 On or Off

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

- ▶ To turn on the PN-60, press and hold **Power** until you see the Welcome screen.
- ▶ To turn off the PN-60, press **Power** and hold for 1.5 seconds until the “Shutting down the device” message displays. Then, release the button.

## To view or hide Demo Mode

The first time you turn on the PN-60, it opens in Demo Mode.

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

## The Home Page

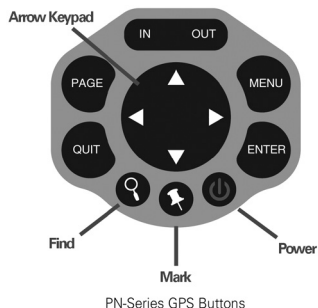
The Home Page uses icons to give you a quick and easy way to locate the page on the device you want to view.

For more information, see *The Home Page* section on page 16.

## Rotating the Display

The screen rotates when you turn the device upside down and the keys on the arrow keypad adjust so that they match the device’s orientation. If you don’t want the display to rotate, go to **Settings > Display > Allow Screen Rotation** and clear the check box.

## Using the Buttons



### Power

Use the **Power** button to turn the PN-60 on and off, lock the buttons, or to change the backlight settings.

- ▶ 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 until the “Shutting down the device” message displays.
- ▶ To open the power options screen, quickly press and release the **Power** button. The following options are available:
  - » To change the backlight intensity, use the arrow keypad to adjust the backlight slider.
  - » To lock the buttons, select **Yes** when you see the **Lock the buttons?** message.

- » To unlock the buttons, press **Power**. Then, select **Yes** when you see the **Unlock the Buttons?** message.

#### Tips

- » Reduce the backlight intensity and decrease the timer to significantly improve battery life.
- » The TFT screen is readable in direct sunlight or slanting light conditions.
- » For more information about backlight intensity and the backlight timer, see the **Settings > Display** section on page 80.

### In/Out

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

- ▶ Press **IN** once to zoom the map or a track profile 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 or a track profile 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 one page at a time when viewing lists.

### Page

Press the **PAGE** button to move forward through the pages in the page order sequence. To add, remove, or

reorder pages, go to **Settings > Page Order** (for more information, see *Page Order* on page 84).

The default page sequence is:

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

## Menu

Press the **MENU** button to access functions for the page or screen you are using.

- ▶ From any page, press the **MENU** button twice to go to the Home Page.
- ▶ From any main menu, press the **MENU** button to go to the Home Page.
- ▶ The menu lists actions specific to the active page—select the item and press **ENTER**.

## Find

The **Find** button is labeled with a magnifying glass. Use it to search your map for a point of interest, address, coordinates, and more. You can also search for waypoints and geocaches in an open waypoint or geocache file. For

more information, see *The Find Page* section starting on page 44.

## 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 48.

## Arrow Keypad

Use the arrow keypad to 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 in that direction.
- ▶ 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 press 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 without changing the map view.

## Enter

Press the **ENTER** button to:

- ▶ Complete the selection of a menu option, entry, field, or screen button.
- ▶ Get detailed information about a point on the map, if available.

## Quit

The function of the **QUIT** button depends on the status of the PN-60; 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.

## Taking a Screenshot



To take a screenshot, hold the **Power** button and press **ENTER**.

- ▶ An SD card must be inserted in the device.
- ▶ The **Screenshots On** check box must be selected in **Settings > Display**. This creates a “screenshots” folder on the SD card.
- ▶ View the SD card contents and open the screenshots folder. If the SD card is still in the device, go to **Settings > Connect to Computer > Open SD Card**.

## 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, number, 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. Also changes numbers to additional symbols.
-  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 are keyboard shortcuts.

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

- ▶ **MENU**—Move cursor focus from the keyboard to the text box for faster editing.

## Info Fields

The Map, Compass, Trip Info, and Profile Pages include fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

***Tip** To change the info fields for an activity navigation/tracking mode, put the device in that mode before you start making changes. It is easy to go back to the default settings at any time.*

For more information about what info fields contain, see the *Info Fields Table* on page 95.

For more information about Activities, see *The Activities Page* on page 17.

### 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.

Go to **MENU > Info Fields** and select **Hide Info Fields** or **Show Info Fields**.

### To arrange info fields

On the Map Page and Compass Page, you can change

how info fields look on the screen.

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

## 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, Compass, Profile, and Trip Info pages, you can customize which info fields display.

1. From the page, go to **MENU > Info Fields > Change Info Fields**.
2. 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**. The changes are saved until you change them again or restore them to the default settings.

## To restore info fields

On the Map, Compass, Profile, and Trip Info Pages, you can restore the default information fields for your current activity.

From the page, go to **MENU > Info Fields > Restore Default Info Fields**.

## Units

You can select the units for different types of measurements that are used on the PN-60.

To change the units, go to **Settings > Units**. For more information, see *Units* on page 83.

## 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.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# Using the SPOT Communicator

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The SPOT Satellite Communicator has two buttons and five light indicators that provide access to power, the SOS message, and device status information. It can operate alone to send emergency messages when the PN-60w is not available.

For information about setting up the SPOT Communicator for first time use and how to set up your account at [findmespot.com](http://findmespot.com), see the *Quick Start Guide*.

## What You Need to Know

- ▶ **The SPOT Communicator needs a clear view of the sky** to obtain a GPS signal and provide the most accurate location information. It is not reliable indoors, in a cave, or in very dense woods.
- ▶ **Orient the SPOT Communicator so that the SPOT logo faces toward the sky**—this provides optimal performance as the antenna is located under the logo.
- ▶ **Keep the SPOT Communicator at least 12 inches away from other GPS devices** as it can interfere with signal reception of other GPS devices.

For detailed information about how the SPOT Communicator works and its coverage area, go to [findmespot.com](http://findmespot.com).

## Buttons

### Power

The **Power** button is on the side of the SPOT Communicator above the **SOS** button.

- ▶ Press and hold the **Power** button for three seconds to turn the device on and off.
- ▶ With the SPOT Communicator turned off, press and hold the **Power** button for five seconds to enter Pairing Mode. Pairing Mode cannot start unless the device is turned off.

### SOS

The **SOS** button is on the side of the SPOT Satellite Communicator below the **Power** button. It has a protective cover to prevent accidental activation.

To activate or cancel SOS messaging mode from the SPOT Communicator, press and hold the **SOS** button for three seconds. A message dialog appears on the PN-60w. An SOS message triggered by the SPOT Communicator can be canceled by the

SPOT Communicator or by the paired PN-60w.

**Note** The SOS button should be used only for life-threatening or other critical situations.

## Light Indicators

The SPOT Communicator uses lights to tell you what it's doing. Every time you turn the SPOT Communicator on, it performs an automatic self-test.

**Important!** If the SPOT Communicator's self test fails, the **Power**, **GPS**, and **Message Sending** lights simultaneously blink red.

### Power

The **Power** light blinks and changes color to indicate various states:

- ▶ **Green**—The SPOT Communicator is on and it passed the self test.
- ▶ **Red**—The batteries have less than 100 transmissions remaining.

### Wireless Connection

The **Wireless Connection** light blinks blue when a wireless connection is established between the PN-60w and the SPOT Communicator. The blue light goes off if the SPOT Communicator has not heard from the PN-60w in 30 seconds. The **Wireless Connection** light blinks

rapidly when the PN-60w and SPOT Communicator are being paired.

### GPS

- ▶ **Green**—The SPOT Communicator is operating in independent mode (not connected to the PN-60w), and is in view of three or more GPS satellites.
- ▶ **Red**—The SPOT Communicator is in independent mode and is unable to see three or more GPS satellites.
- ▶ **Green/Red**—When operating in dependent mode (connected to the PN-60w), the GPS light blinks green or red (depending on the GPS acquisition) for 15 seconds when the SPOT Communicator transitions from GPS acquisition to message transmission.  
**Note** The **GPS** light blinks green or red (depending on the GPS acquisition) simultaneously with the Message Sending light for 15 seconds when the SPOT Communicator starts sending a SPOT message.

### Message Sending

- ▶ **Green**—Any SPOT message is being sent.
- ▶ **Red**—A casual message was not sent. The casual message type includes Check-in/OK, Reference Point, Track Progress, and Geocache messages. For more information, see page 38.



## **SOS** SOS

- ▶ **Green**—The SPOT Communicator is in SOS mode.
- ▶ **Red**—Cancelling SOS mode.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

## **Batteries and Connector**

### **Batteries**

The SPOT Communicator is powered by two Lithium batteries (Energizer® Ultimate Lithium 8x). See page 92 for more information.

### **Connector**

The SPOT Communicator has a mini-USB connector located in the battery compartment. The mini-USB connector is used to transfer firmware upgrades to the SPOT Communicator.

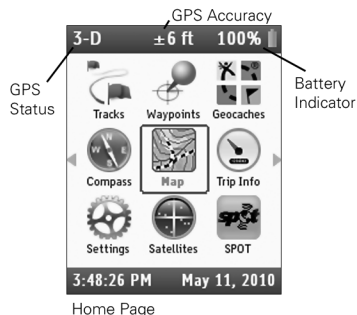
### **Device Pairing**

To control the SPOT Communicator with the PN-60w, you must first pair the devices. From the Home Page, open the SPOT Communicator Page and follow the on-screen instructions. You can also go to **Settings > Wireless > Pair SPOT Communicator** to pair the devices.

For more information about device pairing and initial setup, see the *The SPOT Communicator Page* section starting on page 37 and the *Quick Start Guide*.

# The Home Page

The Home Page uses icons to give you a quick and easy way to locate the page on the device you want to view.



Use the arrow keypad to select an icon and then press **ENTER** to open that page. The Home Page also displays the GPS status and accuracy, the battery indicator, time, and date.

- ▶ To quickly get to the Home Page, from any page on the PN-60, press **MENU** twice.
- ▶ To switch pages, press the right or left arrow until the page view changes.

## Home Page Icons

	Tracks
	Waypoints
	Geocaches
	Compass
	Map
	Trip Info
	Settings
	Satellites
	SPOT (PN-60w only)
	Tides
	Hunt/Fish
	Sun/Moon
	Routes
	Profile
	Activities

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# The Activities Page

Use the Activities Page to optimize the info fields and settings on your PN-60 for eight pre-defined activities and two custom activities. For each activity, the device will automatically change the page order, Home Page icon layout, info fields, and other settings to give you information that is specific to what you are doing.

If you change an option while you are using an activity, your changes are saved—allowing you to fine tune each one of your activities. To change info fields for navigating or tracking (normal GPS use), just make sure you are in the mode you want to change.



Activities Page

## To change the activity

Select the activity you want to use and press **ENTER**. The background of the current activity is highlighted green.

## To restore the default activity settings

It's easy to switch back to the default options for an activity at any time. With the activity you want to reset highlighted on the Activities Page, go to **MENU > Restore Default Settings**.

For more information about the default options for each activity, visit the DeLorme Wiki ([wiki.delorme.com](http://wiki.delorme.com)).

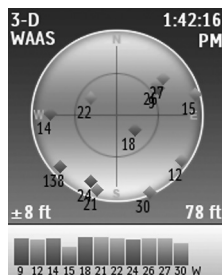
## To create a custom activity

Highlight one of the **Custom** activities and then go to **MENU > Rename Button**. Use the on-screen keyboard to edit the button name.

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# The Satellites Page

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



Satellites Page

## Constellation and Signal Graph

Both the satellite constellation and the satellite signal graph display visible satellites and their identifying numbers. The satellite constellation depicts each satellite's position and the signal graph bars indicate the strength of each satellite signal.

The icons in the satellite constellation and the bars in the signal graph are color-coded based on the quality of the

data they are transmitting:

- ▶ **Gray**—Satellites have not been located but they are shown in the constellation because they appear in the PN-60's almanac data.
- ▶ **Red**—The receiver is tracking the satellite, but it is not using it to navigate.
- ▶ **Yellow**—The receiver is tracking the satellite, predicted ephemeris data is available when a 3-D fix has not been obtained, and the satellite is being used for navigation.
- ▶ **Green**—The receiver is tracking the satellite, ephemeris data is available, and the satellite is being used for navigation.
- ▶ **Blue**—The receiver is tracking the satellite, ephemeris data is available, the satellite is being used for navigation, and WAAS corrections are available.

## GPS and WAAS Status

The Global Positioning System (GPS) is a system of satellites that orbit the earth to provide position and navigation information. The Wide Area Augmentation System (WAAS) is system of satellites and ground

stations that correct GPS signals to improve accuracy.

The GPS status is based on the satellite acquisition status.

- ▶ **GPS Off**—The GPS receiver is turned off.
- ▶ **No Fix**—The GPS does not have 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. Move your receiver to another location to get better reception.
- ▶ **3-D**—The GPS is receiving sufficient satellite data (horizontal position and elevation) to determine your location.

When "WAAS" appears below 2-D or 3-D, the PN-60 has a WAAS connection (available only in North America) that provides up to five times greater positional accuracy than a regular 2-D or 3-D connection.

## To set the current location

If it takes a long time for the PN-60 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**.

## To turn off GPS

You can use many features on the PN-60 without a GPS fix. When the GPS receiver is turned off, "GPS OFF" displays on the screen and all satellites are removed from the satellite constellation.

There are two ways to turn off the GPS receiver.

- ▶ From the Satellites Page go to **MENU > Turn Off GPS**. To turn the GPS on again, go to **MENU > Turn On GPS**.
- ▶ From the Home Page, go to **Settings > System > GPS Setting > GPS Off**. To turn the GPS on, select **Normal** or **Power Saving**.

The GPS receiver is temporarily turned off when in simulation mode (during track playback and navigation simulation).

## Time

You can change the time format, time zone, and manually set Daylight Saving Time. The time is automatically set from GPS satellites and is highly accurate.

To change the time settings, from the Home Page, go to **Settings > Time**.

## GPS Accuracy

In the lower left corner of the Satellites Page, the GPS accuracy displays. This is the calculated accuracy of the GPS, expressed in distance. The actual location is within plus or minus the distance indicated of the location represented by the 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-60 GPS in a jacket or backpack pocket should not affect positional accuracy.

## Elevation

The elevation is based on the current barometric altimeter reading. When the Auto Calibrate Altimeter option is selected, you may see the word "Calibrating" in the bottom right corner of the screen while the barometer adjusts—typically 2-3 minutes. If you are using the Elevation: Barometer 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 87.

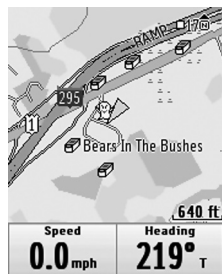
## Compass and Altimeter

Calibrate the compass and altimeter from the Compass Page menu or the Satellites Page menu. The Compass & Altimeter option on the Settings Page has additional sensor settings. For more information, see *Compass and Altimeter* on page 86.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Map Page

The Map Page centers the map on your current location when the PN-60 has a 2-D or 3-D fix. When it does not have a GPS fix, the map displays your last GPS position, or, if panning the map, the map cursor position. For more information, see *GPS and WAAS Status* on page 18.



Map Page

## GPS Arrow

The GPS arrow displays on the map when GPS is turned on. 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. If a 3-D fix has not been obtained, predicted ephemeris 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 starting on page 66.

## Scale and Orientation

For information about:

- ▶ Setting the scale, see *Scale* on page 28.
- ▶ Map orientation, see *Orientation* on page 27.

## Panning the Map

There are two ways to pan the map. When you pan the map, the map cursor—a white arrow—shows your location.

- ▶ **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. Press **QUIT** to remove the map cursor and return to automatic panning.
- ▶ **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; the map will move to the new location.
  - » Press **QUIT** to center the map on your current location.



Panning the Map

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.

## Getting Location Information

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**.

- ▶ For single objects, the object details page displays. From this page, you can mark a waypoint, view the object on the map, or route to the object.
- ▶ For multiple objects, 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

The Map Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or



tracking (regular GPS use). To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 11 and *The Activities Page* on page 17.

## Measure Distance

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



Measure Distance

### 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**. 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 by hovering the cursor over the start location and pressing **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.

## Turn Imagery On/Off

When you have added map packages that include imagery to your PN-60, you can quickly turn the imagery off or on.

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

## Map Setup

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

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

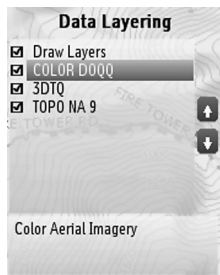
## Data Layering

The base map that is pre-loaded on the PN-60 shows high-level world coverage, as well as more detailed coverage for North America. 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.

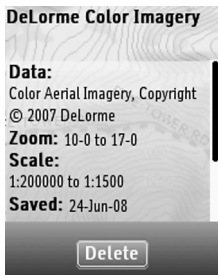
For more information about the types of data you can add to your PN-60, see *Detailed Map Data* on page 26.

To manage individual map packages that you have added to your device, see the next section—*Data Management*.

Only the data types you have on your device show in the Data Layering list.



Data Layering



Data Detail

The default order for layering data is:

- ▶ GIS layers by name (XMap® only)
- ▶ Draw Layers
- ▶ Public Lands
- ▶ User Raster Data (XMap only)
- ▶ Custom 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)
- ▶ Canadian 1:50K Topographic Sheets (Canadian 1:50K)
- ▶ NOAA Nautical Charts (NOAA Charts)
- ▶ Satellite Imagery (SAT10)
- ▶ XMap Topographic Data (XMap only)
- ▶ DeLorme Topographic Data (Topo North America 9.0)
- ▶ DeLorme World Base Map 7 (XMap only)

## To layer data

Use the Data Layering option to select the types of data you want to view on your PN-60 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 of data, 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**.
- ▶ To view details about the layer, highlight it and go to **MENU > Layer Detail**.

## Data Management

The PN-60 stores routes and the base map in its internal memory. You can save user maps—including the detailed DeLorme Topo North America maps, waypoints, geocaches, and tracks in the device's internal memory or on a removable SD card.

To view and manage memory information, go to **Settings > System > Memory Use**.

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-60, 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*.

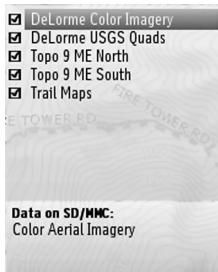
For more information about the types of data you can add to your PN-60, see the next section, *Detailed Map Data*.

## 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**.



Data Management

## Detailed Map Data

Your PN-60 comes with a base map showing overview-level worldwide coverage, as well as North American interstates and routes, state routes, and major roads. While this provides a great view of a large area, you need a detailed view of a smaller area for hiking, geocaching, and other activities.

You can transfer detailed maps and map packages to the PN-60 using:

- ▶ **PN-Series detailed map DVDs**—Included with your device are DVDs with detailed pre-formatted DeLorme Topo North America™ data. This data includes detailed routable road and topographic data for the U.S. and Canada and major road data for Mexico. Insert the DVD for your area of interest in your computer's DVD drive and follow the on-screen instructions to copy the maps you want onto your device. **Note** Elevation data and land cover is not available for Mexico.
- ▶ **Compatible DeLorme mapping software**—Instructions for sending map packages, data, draw layers, and more to your PN-60 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 ([data.delorme.com](http://data.delorme.com)) to download many types of imagery and data, such as satellite imagery, aerial imagery, USGS 1:24K Topo Quad maps, Canadian 1:50K topographic sheets, 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-60.

- ▶ **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 29.

*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.

## Map Setup Options

### Orientation

You can set the map to rotate as you move.

#### 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 scales of 640 feet and higher.

From the Map Page, go to **MENU > Map Setup > Show 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**. Select each option and then select how you want that type of map point to appear on the map. Select the **Hide Logged Caches** check box if you do not want logged geocaches to appear on the map.

## Scale

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



Scale

### To set the scale

From the Map Page, go to **MENU > Map Setup > Scale**; from the drop-down list, select an option.

- ▶ **Bar**—Represents a given length on the map compared to an actual length.
- ▶ **Zoom**—The DeLorme term for 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 Map 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, go to **MENU > View Comment Details** to quickly view the comment for the waypoint or geocache you are navigating to. The comment for the most recently viewed point is displayed.

### 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 your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 53.

### 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 *Route Settings* on page 61.

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

### Hide Route

When you are viewing a route on the map (but not navigating), 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-60. 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

- ▶ Navionics information appears on the device only when you 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; if it doesn't, select it from the **Chart** list on the Navionics Setup page.

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-60. To access all of these options, go to **MENU > Map Setup > Navionics Setup**.

### To select a chart

From the Navionics Setup page, 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

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

### To set the presentation mode

US and International charts have different symbols and markings. 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 Default Settings**.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Compass Page

Use the Compass Page's graphic compass to help you find your destination. The PN-60 uses GPS to determine compass readings when the device is moving. It also has an electronic compass for use when the device is stationary or moving below 1.5 mph.



Compass Page



Navigating

## Bearing Arrow

As you move, the compass rotates so that the heading is always up. When you are navigating a route, the green bearing arrow displays on the compass to show you the direction you should be going.

## 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**.

## Electronic Compass

The PN-60's electronic compass shows your direction 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 information.

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 caused by a car. You may want to turn off the electronic compass when you are in an area with magnetic interference. For more information, see *Compass and Altimeter* on page 86.

**Tip** Calibrate the compass when you change the batteries in the PN-60.

## Calibrating Sensors

You can calibrate the PN-60's electronic compass and barometric altimeter with the Calibrate option on the Satellite Page menu, the Compass Page menu, and the Settings > Compass & Altimeter menu. The Settings > Compass & Altimeter options allow you to turn the electronic compass, the barometric altimeter, and the auto-calibrate altimeter option on or off. For more information, see *Compass and Altimeter* on page 86.

## Info Fields

The Compass Page includes fields of information that you can customize to suit your needs. You can even change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

To access the Info Fields options, go to **MENU > Info Fields**. For more information, see *Info Fields* on page 11 and *The Activities Page* section on page 17.

## 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 your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 53.

## 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 *Route Settings* on page 61.

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

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Trip Info Page

The Trip Info Page displays info fields that you can customize to manage your trips.

Next Turn	
Rte. 136 (Moun...	
Distance to Finish	
45.76 mi	
Time to Turn	Dist to Turn
00: 03:21	1.37 mi
Trip: Moving	Speed
00: 08:54	36.4 mph
Trip: Total	Speed: Avg
00: 09:52	23.2 mph

Trip Info Page

## Info Fields

You can change which info fields display depending on your activity. For each activity, the info field types change for navigating or tracking (regular GPS use).

**Tip** To change the info fields for an activity and navigation/tracking mode, put the device in that mode before you start making changes. It is easy to go back to the default settings at any time.

For more information about what info fields contain,

see the *Info Fields Table* on page 95.

For more information about activities, see *The Activities Page* on page 17.

## To reset the trip information

Use the **Reset Trip Info** option to reset the trip values, speed information, elevation, 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.

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. Then, select **Reset Now**.

## Other Menu Options

Additional options are available on the Trip Info Page menu when you are navigating.

## View Comment Details

When navigating to a waypoint or geocache, the View Comment Details option allows you to view any available

comments for the point you are navigating to. The comments for the most recently viewed point display.

## **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 your next cache. For more information about all of these features, see *The Geocaches Page* section starting on page 53.

## **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 *Route Settings* on page 61.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The SPOT Communicator Page

## ***PN-60w only***

The SPOT Satellite Communicator uses GPS signals and communication satellites to relay your message—no cell phone coverage necessary—giving you peace of mind.

The SPOT Communicator Page on the PN-60w gives you an easy way to use and manage your SPOT Communicator.

- ▶ See the *Quick Start Guide* for information about:
  - » Activating your SPOT account at [findmespot.com](http://findmespot.com)
  - » Setting up your SPOT Communicator for first-time use
  - » Pairing your PN-60w and SPOT Communicator
- ▶ See *Using the SPOT Communicator* section starting on page 13 for information about using the device.



SPOT Communicator Page

## **Connect**

To connect a SPOT Communicator that is paired with the PN-60w or to initiate the pairing process, go to **MENU > Connect SPOT Communicator**.

To disconnect a paired device, go to **MENU > Disconnect SPOT Communicator**.

At the top of the SPOT Communicator Page, a message displays the current status of the SPOT Communicator.

*Tip* If you need to turn the wireless antenna off, go to **Settings > Wireless** and clear the **Wireless Antenna On** check box.

## **Sending Messages**

Your SPOT account at [findmespot.com](http://findmespot.com) is the link between your PN-60w and your SPOT Communicator. When you set up your account, you will add your contacts and create groups of contacts; write pre-defined messages to quickly update your status when you're out in the field; and send the information to your PN-60w. You can also purchase additional recommended service options, such as support for Track Progress and Type & Send messages.

## Message Priority Levels

Each type of message you can send is assigned a priority so that if you have multiple messages to send, each one is sent in order of importance.

- ▶ **Critical**—An SOS message is the highest priority message type and is sent to the GEOS Rescue Coordination Center for emergency response. A critical message supersedes both casual and urgent messages.
- ▶ **Urgent**—Help/Assist messages are the second highest priority message types. Help messages are sent to one of the contact groups that you can select on the PN-60w. Assist messages are sent to one or more professional service providers for non-critical emergency response. An urgent message supersedes a casual message.
- ▶ **Casual**—Check-in/OK, Reference Point (marking a waypoint), or Geocache messages are sent to a contact or social network that you have set up in your SPOT account. Track Progress messages are sent to your SPOT account for logging or to online maps. A casual message has the least priority.

## Message Types

You can send a pre-defined message or you can create a new text message (Type & Send) and send it to the contact groups you have set up with your SPOT account.

You can even share with social network websites—Facebook®, Twitter™, or Fire Eagle™—that you've set up a connection to on findmespot.com. In addition, SPOT Adventures (spotadventures.com) provides a location for you to share your SPOT messages, tracks, videos, and photos as well as notes from your adventures.

For each message sent, a waypoint icon is placed on the Map Page.

## SOS

Use the SOS message to notify emergency services of your GPS location and that you need assistance when you have a life threatening or other critical emergency.

- ▶ Send a pre-defined message or create a new Type & Send message.
- ▶ SOS messages are sent using the critical priority level.
- ▶ If a GPS fix is obtained, an SOS message with the GPS position will be sent every five minutes. If there is no GPS acquisition, the SPOT Communicator will send your message without coordinates while



continually trying to obtain a GPS fix.

- ▶ If the PN-60w loses communication with the SPOT Communicator, the SPOT Communicator will continue to send messages using its own GPS every five minutes until the PN-60w is turned on and a new command is issued or the SPOT Communicator batteries are depleted.
- ▶ As a backup, the SPOT Communicator can send SOS messages; simply hold the SOS button on the side of the SPOT Communicator for three seconds.
- ▶ You can send an SOS message while in any other mode, but sending an SOS message cancels any modes in progress. SOS and Help/Assist messages can be sent at the same time.

## Help/Assist

A Help message notifies your contacts that you need assistance in a non life-threatening situation.

A SPOT Assist message notifies SPOT Assist dispatch centers of your GPS location and that you need assistance. Professional service providers will be notified that you need help (SPOT Assist service subscription required).

- ▶ Send a pre-defined message or create a new Type & Send message.
- ▶ Help/Assist messages are sent using the urgent priority level.

- ▶ If a GPS fix is obtained, a Help or SPOT Assist message with the GPS position will be sent every five minutes for one hour. If the PN-60w loses communication, the SPOT Communicator will continue to send messages every five minutes until the PN-60w is turned on and a new command is issued, the one hour timer expires, or the SPOT Communicator batteries are depleted, whichever happens first.
- ▶ You can send a Help/Assist message while in Check-in/OK, Track Progress, or SOS modes, but sending a Help/Assist message cancels any Check-in/OK or Track Progress messages that are in progress. Help/Assist and SOS messages can be sent at the same time.

## Check-in/OK

Send a message to your contacts or upload field notes to Geocaching.com.

- ▶ Send a pre-defined message or create a new Type & Send message.
- ▶ Check-in/OK messages are sent using the casual priority level.
- ▶ If a GPS fix is obtained, the Check-in/OK message will be sent three times within a 20 minute window.

**Important** To increase the probability of a successful

message transmission from the field and out to contact lists, allow your SPOT Communicator to transmit until the message cycle is complete.

- ▶ You can send a Check-in/OK message while a Track Progress message is in progress, but it will interrupt the Track Progress messages until the Check-in/OK message cycle is complete.
- ▶ You cannot send a Check-in/OK message when an SOS or Help/Assist message is in progress.

## Track Progress *(Optional Service)*

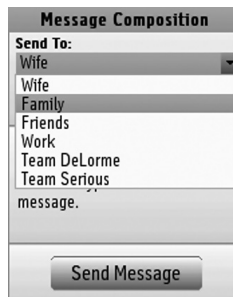
A Track Progress message sends your location to your SPOT account (My Account at findmespot.com). You also have the option to share your location data in near real-time via web links to a Shared Page or a Live Map at spotadventures.com.

- ▶ Track Progress messages are sent using the casual priority level.
- ▶ If a GPS fix is obtained, a Track Progress message will be sent every 10 minutes for 24 hours unless canceled.
- ▶ You cannot send this type of message when an SOS or Help/Assist message is in progress.

## To send a message

1. From the SPOT Communicator Page, select the message type: **Check-in/OK**, **Track Progress**, **Help/Assist**, or **SOS**.

2. On the Message Composition page, select the contact, group, or **Social Networks Only** from the **Send** drop-down list,
3. If you selected Social Networks Only, select the check box for the site you want to post a message to.
4. From the **Message** drop-down list, select the message type; you can send a pre-defined message or a Type & Send message.
5. If you selected Type & Send message, use the arrow keypad to highlight the text area and press **ENTER** to open the on-screen keyboard. As you enter your message, note that the remaining number of characters allowed displays. When you finish typing the message, select **OK**.
6. On the Message Composition page, select **Send Message**.



Message Composition Page



On-Screen Keyboard

## Sharing Reference Point Information

Use the SPOT Communicator to send information about a reference point (defined as any point on the map other than where you are), geocache, Find search result, or map point from the PN-60w to your contacts. While viewing details for a point or search result, go to **MENU > Send Point with SPOT**. The SPOT Communicator page will open for you to complete your message.

## Logging Geocaches and Uploading Field Notes

With the SPOT Communicator and PN-60w, you can log a geocache find and write a field note in the field and immediately send the information to Geocaching.com.

Link your premium Geocaching.com account to your account at findmespot.com before you go into the field. This will allow you to log a geocache or upload field notes in near real-time from virtually anywhere with the SPOT Communicator.

For more information, see *To log a geocache* on page 58.

## Send Progress Page

Once you have sent a message, the Send Progress page displays information about the message currently in

progress. When the SPOT Communicator status indicates that a message mode is in progress, you can select that message type to view the Send Progress page.

Send Progress	
Family <b>I just made it to the summit!</b>	
Times Sent <b>1 of 3</b>	Time Started <b>07:29 AM</b>
Next Send <b>00:04:54</b>	Time Remaining <b>00:11:06</b>
<b>Cancel Sending</b>	

Send Progress Page

The Send Progress page displays the following information about the message:

- ▶ **Message**—The message recipient and the content of the message.
- ▶ **Times Sent**—The number of times the message has been sent. While a single message transmission has a good probability of being received, waiting for the full three message transmission to complete gives the highest probability of a successful delivery.
- ▶ **Time Started**—The time the message was initiated.
- ▶ **Time to Next Send**—Displays the amount of time remaining until the SPOT Communicator sends the next message.

- ▶ **Time Remaining**—Displays the amount of time remaining until the message is complete.

## To cancel sending

You can cancel a message that is in progress. Select **Cancel Sending** and press **ENTER**. If the Message Progress page is still active after all of the messages for a message type have been sent, the Cancel button changes to Done. Returning to the SPOT Communicator Page after all of the messages have been sent shows the Message Composition page.

- ▶ **Casual messages**—Canceling Check-in/OK, Reference Point, Geocache, and Track Progress messages cancels the message and begins a three minute timer before the next message can be sent.
- ▶ **Urgent and Critical messages**—Canceling Help/ Assist and SOS messages cancels the message and sends a Cancel Help, Cancel SOS, or Cancel Help and SOS message.

For Help/Assist and SOS messages, the Send Progress page shows that the SPOT Communicator is sending a cancel message. If the first message had not yet been sent, a cancel message is not sent.

## Message History

You can view a list of messages that have been sent from the PN-60w with the SPOT Communicator. See all the messages you've sent, when you sent them, and who you sent them to.

### To view message history

1. From the SPOT Communicator Page, go to **MENU > View SPOT Message History**.

The Message History Page displays a list of messages; the message type is indicated by an icon.

2. From the list, select the message you want to view and then select one of the following:
  - » **View Message Details**—Displays the Send Progress page for each message.
  - » **View on Map**—Displays the location from which the message was sent and the waypoint icon for the message type.

**Note** You can also view your message history from the last 30 days in your account at [findmespot.com](http://findmespot.com).

From the Message History page, go to **MENU > Export Message History**. You can save the message history on the internal drive or to an SD card in the device.


## To clear message history

From the Message History page, go to **MENU > Clear Message History**. All the messages in the history are cleared and the message waypoint icons are removed from the map.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Find Page

Use the Find Page to search for addresses, roads, cities, points of interest (POIs), waypoints, geocaches, coordinates, and more.

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



Find Page

## Search Methods

There are two ways to search—near map center or by name; the most recent method you use is saved between searches.

- ▶ **Find Near Map Center**—The device searches from the current GPS location. If GPS is turned off or if you are panning the map or viewing another location, the

search is from the current map center. 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. Then, in the **Name** field, type one or more characters that the name begins with or contains; the more letters you enter, the more relevant your search 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 current search method

Go to **Find > MENU**. The available options are preceded by "Switch to..." and the device is set to the option that is not showing. To change the search method, select the method you want to use.

## Searching for a Location

To search for a place, press **Find** at any time. The device will begin searching using the most recent search criteria.

- ▶ You can change the search method.
- ▶ 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 you stop the search, select **Continue Search** to keep searching.

## Show

The Show field is the primary search category. You can select the following Show options; below each option is a list of information you can change to improve your search results.

- ▶ **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** (from the current waypoint file)  
Symbol  
Name (Find by Name only)
- ▶ **Geocaches** (from the current geocache file)  
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)
- ▶ **DeLorme Atlas & Gazetteer Points**  
Category  
State/Country/City/Name (Find by Name only)
- ▶ **Addresses**  
State/Country/City/Building Number/Street Name  
(Find by Name only)

### ► Coordinates

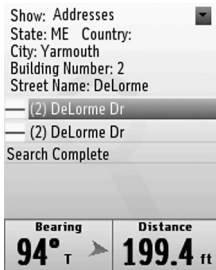
Coordinates can be edited.

### ► Streets/Trails

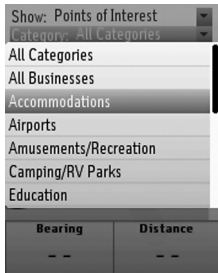
State/Country/City/Name (Find by Name only)

### ► Cities

State/Country/Name (Find by Name only)



Find by Name (Address)



Find Near Map Center (POI)

## 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:

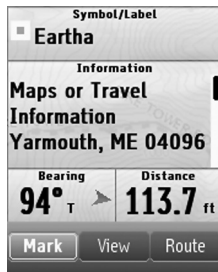
- From the GPS position when the device has a GPS fix.
- From the cursor location if you are manually panning or viewing another location.
- From the map center if GPS is turned off.

## To view the results list

To view the results, use the arrow keypad to scroll through the list, or press the **IN/OUT** button to go forward or backwards a page at a time. 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.



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 50.

## 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 61.

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 straight to step 3.
3. Select **Hike** or **Drive**.

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

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Waypoints Page

A waypoint is a location that you mark and store using the PN-60. You can also transfer waypoint files to the PN-60. Waypoints are identified by coordinates, and you can assign a symbol, name, and other information to them. The Waypoints Page lets you view a list of the active waypoints on your PN-60. Waypoints are active when you:

- ▶ Open a waypoint file
- ▶ Mark a new waypoint

**XMap users** See the supplemental online help on the DeLorme Wiki ([pn-series.wiki.delorme.com/xmap](http://pn-series.wiki.delorme.com/xmap)) for information about using XMap with the Waypoints Page.

Camp Waypoints - 9	
🏠 Camp	
🌊 Sunday River	
🌲 Merwin Place	
🌳 Yellow Birch Tree	
🌲 Angie Carlton Place	
🎿 X-Country Ski Trail	
🚙 Snowmobile Bridge	
🌊 Stream Crossing	
<b>Bearing</b>	<b>Distance</b>
86° T	342.2 ft

Waypoint List

For information about geocache waypoints, see *The Geocaches Page* starting on page 53.

## Managing Waypoint Files

Waypoints are managed using GPX files; each file can contain up to 1,500 waypoints. For more information about GPX files, see *File Management* starting on page 85.

**Tip** Use **Find** to quickly locate a waypoint in the open waypoint file. For more information, see **The Find Page** section starting on page 44.

## Waypoint List

The Waypoints Page displays a list of waypoints from the GPX file open on your device. The file name and the number of waypoints in the file appear at the top of the page. When you highlight a waypoint 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 the GPS receiver is turned off.

## Sorting the List

There are two ways to sort your list of waypoints—by distance from your GPS location or alphabetically by name. From the Waypoints Page, press **MENU**; the device is set to the option that is not showing. To switch to the highlighted option, press **ENTER**. If the file has a large number of waypoints, press **ENTER** to interrupt the sorting process and see a partial list.

## Symbols

The waypoint symbols available on the PN-60 match the PN-Series symbol set in your DeLorme mapping application. The symbol set includes geocaching symbols (these are at the end of the symbol list). To ensure a waypoint displays on the Waypoints Page, use a waypoint symbol. If you use a geocaching symbol, the waypoint will display only on the Geocaches Page. To see the geocaching symbols, go to page 54. For a complete list of symbols, see the DeLorme Wiki ([wiki.delorme.com](http://wiki.delorme.com)).

## File Menu

Use the File menu to manage waypoint GPX files stored in the PN-60's internal memory or on an SD card in the device, as well as waypoints you create on the device. For more information about files, see *File Management* on page 85.

To open the File menu, from the Waypoints Page, go to **MENU > File**. The following options are available:

- ▶ **New**—Create a new GPX file and name it. When you turn off the device, the file will be automatically saved.
- ▶ **Open**—View a list of GPX files in internal memory and on the SD card. Select the file you want to open and press **ENTER** to view the waypoints on the device.
- ▶ **Save As**—Save the open file as a new file, name it, and select the location for the file. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.
- ▶ **Move to Internal/Move to SD Card**—Move the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.
- ▶ **Close** – Close the open GPX file.

## Marking a Waypoint

Use the **Mark** button on the PN-60 to mark a waypoint at your current GPS location or at the map cursor if you are viewing another location on the map. When the waypoint is marked at the map cursor location, the elevation is not available.

When you press **Mark**, the waypoint is saved and a waypoint details page opens where you can edit the waypoint details. For more information, see *To edit waypoint details*.

You can also mark waypoints using the on-screen **Mark** option on Find search result details and route point details pages.

When you mark a waypoint, 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 name a waypoint "Campsite," the second waypoint is named "Campsite 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 map pin is the default symbol.

## To mark a waypoint on the map

From the Map Page, press **Mark** to save the waypoint and open a new waypoint details page.

On the waypoint details page, you can do the following:

- ▶ Edit the waypoint details.
- ▶ Delete the waypoint.
- ▶ View the waypoint on the map. To return to the waypoint details page, press **QUIT**.
- ▶ Create a route to the waypoint.

For more information, see the *Managing Waypoints* section.

## 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** on the screen. The result is saved as a waypoint and the waypoint details page displays; you can edit the information.

## Managing Waypoints

### To view waypoint details

Use the waypoint details page to view detailed information about a waypoint.

From the Waypoints Page, select a waypoint and press **ENTER**. The waypoint details page opens.

### To edit waypoint details

On a waypoint details page, you can customize the waypoint symbol, label (name), coordinates, elevation, time/date, and comments.

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

Symbol/Label	
Camp	
Coordinates: Lat/Lon	
N 43° 48.4739'	
W 070° 09.8066'	
Elevation	Time/Date
+00104 ft	08:03 PM
25-Nov-08	
Comments	
Delete	View
Route	

Waypoint Details

## To view comment details

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

**Note** When navigating, the View Comment Details option is also available from the Map, Compass, Trip Info, and Directions pages. The comment for the most recently viewed point is displayed.

## 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 to a waypoint from your current location. All driving routes and hiking routes with multiple points are automatically saved. For more information about creating and modifying routes, see *The Routes Page* starting on page 61.

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 Waypoint Symbols page, select the check box

for each symbol you want to delete. Only symbols used in the current file are listed.

3. Select **Delete**. When you see the confirmation message, select **Yes**.

The waypoints with that symbol in the current file are deleted from the file.

## Averaging a Waypoint

When you average a waypoint, the PN-60 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. Multiple readings improve the positional accuracy of the waypoint. The estimated accuracy number decreases as the accuracy improves.

### To average a waypoint

From the waypoint details page, 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.

## Projecting a Waypoint

You can project a waypoint at a new location by providing the bearing and distance from an existing waypoint.

### To project a waypoint

1. From the waypoint details page, go to **MENU > Project Waypoint**.
2. Enter the information for projected waypoint in the **Bearing** and **Distance** fields.
3. Select **Move** to move the existing waypoint or **Create New** to mark a new waypoint at the projected location. Then, press **ENTER**.

Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.

# The Geocaches Page

Geocaching is a treasure hunting game where you use a GPS device to search for geocaches—containers that include a log for you to record your visit. Some geocaches have trinkets you can take—just follow the “take one, leave one” rule. To find out more about geocaching, visit [Geocaching.com](http://Geocaching.com).

On the PN-60, a geocache is a special type of waypoint used for geocaching. The Geocaches Page lets you view a list of the active geocaches on your PN-60. Geocaches are active on your PN-60 when you open a waypoint file that contains geocaches.



Geocache List

## Managing Geocache Files

Geocaches are managed using waypoint GPX files; each file can contain up to 1,500 geocaches and child waypoints. For more information about GPX files, see *File Management* on page 85.

**Tip** Use **Find** to quickly locate a geocache in the open waypoint file. For more information, see **The Find Page** section starting on page 44.

## Geocache List

The Geocaches Page displays a list of active waypoints from the GPX file open on your device. The file name and the number of geocaches and any child waypoints in the file appear at the top of the page. When you highlight a waypoint 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 the GPS receiver is turned off.

## Sorting the List

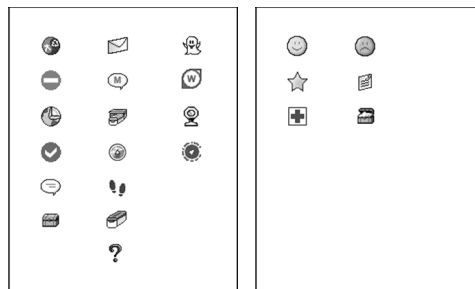
The Geocaches Page is automatically sorted into two separate lists—logged and not logged—based on the geocaching symbol type. You can sort the list you are viewing by the distance from your GPS or map location or sort alphabetically by name.

The device is set by default to sort by name. To change the sorting method, press **MENU**, highlight the sorting method to use and press **ENTER**. If the file has a large number of geocaches, press **ENTER** to interrupt the Sorting Geocaches process and see a partial list.

## Symbols

Geocache symbols come from Geocaching.com and are also available in the PN-Series symbol set in your DeLorme mapping application. For a printable list of symbols on the device, see the DeLorme Wiki ([wiki.delorme.com](http://wiki.delorme.com)).

When you change a geocache symbol, be aware that it may affect how the geocache is displayed on the device. 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.



Not Logged

Logged

## File Menu

Use the File menu to manage geocache (waypoint) GPX files stored in the PN-60's internal memory or on an SD card in the device, as well as geocaches you create on the device. To open the File menu, from the Geocaches Page, go to **MENU > File**. The following options are available:

- ▶ **New**—Create a new GPX file and name it. When you turn off the device, the file will be automatically saved.
- ▶ **Open**—View a list of GPX files in internal memory and on the SD card. Select the file you want to open and press **ENTER** to view the waypoints on the device.
- ▶ **Save As**—Save the open file as a new file, name it, and select the location for the file. If you have made any changes to the open file, the changes are saved in the new file—the original file does not retain the changes.



- ▶ **Move to Internal/Move to SD Card**—Move the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.
- ▶ **Close**—Close the open GPX file.

## How to Add Geocaches to the PN-60

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

- ▶ **DeLorme Topo North America™ 9.0**—Use Earthmate® GPS Sync to sync GPX files, including Pocket Queries from Geocaching.com, and then send them to your device. See the program's Help for more information.
- ▶ **DeLorme Send to GPS Plugin**—This free plugin is available to members of geocaching.com. Once you find a geocache on the Geocaching.com website, send it directly to your PN-60. See *To use the Send to GPS plugin*.
- ▶ **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-60. You must be a premium member of Geocaching.com to create pocket queries. To purchase Cache Register, visit our website (delorme.com). See the program's Help for more information on how

to use Cache Register.

**Note** Cache Register is compatible with Apple® computers.

## To use the Send to GPS plugin

With the DeLorme Send to GPS plugin, you can send one geocache at a time to a PN-60. 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-60 to your computer. The device should be set to the default Connect to Computer setting—Use GPS.
2. On Geocaching.com, use the *Seek a Cache* feature to find the geocaches in your area of interest.
3. From the results list, click the **Send to GPS** icon or view the geocache's details and click the **Send to GPS** button.
4. The DeLorme Send to GPS plugin opens and transfers the geocache to your device.
5. Repeat step 3 to send each geocache to your device.

## Managing Geocaches

### To view geocache details

Use the geocache details page to view information about a geocache, when available.

From the Geocaches Page, select a geocache and press **ENTER**. The geocache details page opens.

**Tip** The **Last Logged** field on the geocache details page displays the first two lines of the most recent log entry.

## To edit geocache details

You can edit the symbol, label, and coordinates. You can edit comment details 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**.



Geocache Details



Comment Details

## To view comment details

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.

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. The comment for the most recently viewed point is displayed.

**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**.

## 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**. The geocache's location information will update to the current GPS location.

### 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**.

1. On the Geocaches Symbol page, select the check box for each symbol you want to delete. Only symbols used in the current file are listed.
2. Select **Delete**. When you see the confirmation message, select **Yes**.  
The geocaches with that symbol in the current file are deleted from the file.

### Averaging a Geocache

When you average a geocache, the PN-60 records a series of GPS readings for the geocache's location and averages them to increase the positional accuracy of the geocache. As you average the geocache, the GPS status, coordinates, elevation, number of readings at the location, and estimated accuracy display. Multiple readings improve

the positional accuracy of the geocache. The estimated accuracy number decreases as the accuracy improves.

### To average a geocache

From the geocache details page, go to **MENU > Average Geocache**. 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 geocache.

### Projecting a Geocache

You can project a geocache at a new location by providing the bearing and distance from an existing geocache.

### To project a geocache

1. From the geocache details page, go to **MENU > Project Geocache**.
2. Enter the information for projected geocache in the **Bearing** and **Distance** fields.
3. Select **Move** to move the existing geocache or **Create New** to mark a new geocache at the projected location. Then, press **ENTER**.

# Geocaching

Out in the field, pick a geocache to start with and then use the PN-60 to navigate to, log, and write field notes for one geocache 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-60 finds the next geocache for you. Routes to geocaches are not saved on the device.

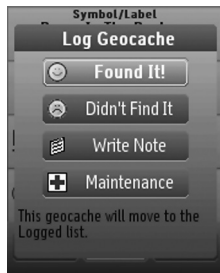
1. On the geocache details page for the first geocache on your Not Logged list, select Route.
2. Select **Hike** or **Drive**.  
The route calculates and the Map Page displays in navigation mode.
3. Navigate to the geocache.
4. When you are ready to log the geocache, go to **MENU > Log Your Geocache Find**.
5. Write a field note or leave the default information and select **Done**.
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.

**Tip** With a SPOT Communicator paired with your PN-60w, you can wirelessly log geocaches and upload field notes to Geocaching.com. Select the option to log the find with your SPOT device and follow the on-screen instructions.

## 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 **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**.



Log Geocache Find

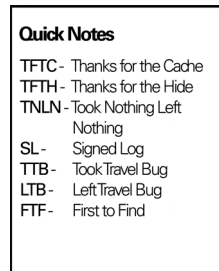
## To write a field note

When you log a geocache, 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. 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

You can upload field notes from your device to Geocaching.com with the Earthmate GPS Sync dialog in Topo North America, a SPOT Communicator paired with your PN-60w, Cache Register, or the DeLorme Field Notes page on Geocaching.com. See the Help for each application for complete instructions. For the SPOT Communicator, select the option to log your find with SPOT and follow the instructions on the PN-60w.

**Apple® computer users** *When your device is connected to your computer, manually eject the EM\_USERMAPS drive after use; if you do not, the drive is forcefully ejected and could harm both the device and disrupt other USB drives connected to the computer.*

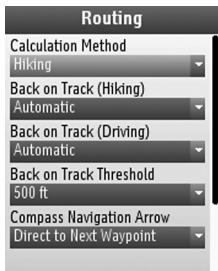
*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Routes Page

The Routes Page displays a list of routes you have created on the device and routes you have sent to the device with a DeLorme mapping application. Using DeLorme Topo North America™ or XMap® to plan routes on the desktop for transfer to the PN-60 ensures you take exactly the road route you want and is the best way to create long routes.



Routes Page



Edit Route Settings

In the routes list, hiking (direct) routes have a yellow “Z” icon and driving routes have a blue curved line icon. The active route name appears in bold text. You can save up to 100 routes on the device.

## Route Settings

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

From the Routes Page, press **MENU** and select **Edit Route Settings**.

### To edit route settings

Select the route option you want to change and then select the new setting.

- ▶ **Calculation Method**—Determines the option (Hike or Drive) to use when you create a route and is the default method when viewing a route that has not been calculated. From the drop-down list, 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.
  - » **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. Select **Off** if you do not want to use Back on Track. Also, select **Off** for trail routes sent to your device from DeLorme Topo North America or XMap—if the route recalculates, it will be converted to a direct route to the finish.

» **Driving**—Select **Automatic** to recalculate based on how far off the route you are. 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**.

► **Restore Default Settings**—To restore the default settings for all options, select **Restore Default Settings**.

## Create a Route

There are several ways to create a route on the PN-60:

- 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. See the appropriate section of the manual for more information.
- From the Routes Page, you can create a route to one point or multiple points.

### To create a route from the current position

Current Position is the default start point for a route. It's the current GPS location or, if GPS is turned off, the map cursor position.

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 **New**



**Route** field, press **ENTER**, and use the keyboard to make changes.

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. If there are multiple objects at the cursor location, a list displays—select the object from the list. When you are finished adding points, 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. If you selected **Navigate**, select the route method; **Hike** or **Drive**. The route calculates and displays on the map, and the device is in navigation mode.  
OR  
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 point details, change the point's order in the route, or remove the point from the route.

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

- **Details**—The details page for the point displays. The options available depend on the type of point you are viewing.
- **Move**—Selects 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**.

## Directions Page

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

Directions	
	Current Position
	0:22:46 13.40 mi
	DeLorme Dr
	0:22:46 13.37 mi
	<unnamed>
	0:22:26 13.23 mi
	US 1
	0:22:26 13.22 mi
	<unnamed>
	0:21:41 12.71 mi
	E Main St
	0:21:31 12.64 mi
	North Rd
	0:21:18 12.56 mi

Directions

## To change the distance type

You can change the distance type 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

Additional options are available on the Routes Page menu when you are navigating.

## View Comment Details

When navigating, go to **MENU > View Comment Details** to quickly view the comment for the waypoint or geocache you are navigating to. The comment for the most recently viewed point is displayed.

## Log Your Geocache Find

When navigating to a geocache, use this option to quickly log geocaches, write field notes, and pick your next cache. For more information about these features, see *The Geocaches Page* section starting on page 53.

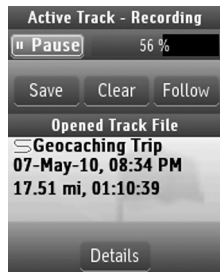
## Route Options

When navigating, use Route Options to stop navigating, get back on track, or switch the route type. For more information about route options, see *Route Settings* on page 61.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Tracks Page

A track is a recording of points along the path you travel—use it to keep a log of your travels. From the Tracks Page, you can turn track recording on and off, set the method for recording track points, manage track files, and view a track on the Profile Page. You can open a saved track file while a new track is recording—both the active and open track can display on the Map Page at the same time. The Opened Track File area on the Tracks Page displays information about a saved track file that you have opened to view.



Tracks Page

## Viewing a Track on the Map

On the Map Page, you can view the active track and one open track file at the same time.

An open track file is the color set in the track's details (see *To view details for the open track* on page 69). The appearance of the active track is based on your GPS status.

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

## Track Settings

To customize how tracks are recorded, from the Tracks Page, go to **MENU > Edit Track Settings**.

- ▶ **Record points by**—The method for logging points; select **Time** or **Distance** from the drop-down list. A short time interval gives you the most detailed results but quickly adds many points; logging by distance gives you a longer recording time.
- ▶ **Recording interval**—The amount of time or distance between each point recording. To edit the number, highlight it and press **ENTER**. Use the left/right arrows on the arrow keypad to select a number and use the up/down arrows to change it.
- ▶ **When track is full**—Determines what the device does when the maximum number of points (20,000 per track) is reached.
  - » **Start Recording a New Track**—The device saves the track and starts recording a new track.
  - » **Overwrite Points**—The oldest points on the track are replaced with new points.
  - » **Stop Recording**—The device stops recording.
- ▶ **Prompt to Reset Trip Info**—When this check box is selected, the Reset Trip Info page appears when you manually save or clear an active track. This synchronizes the Trip Info page with the active track.

To restore the default track settings, select **Restore Default Settings**.



Track Settings

## Managing Active Tracks

### To turn track recording on or off

To turn track recording on, select **Record**. To stop recording, select **Pause**.

### To clear the active track

To clear the active track, on the Tracks Page, select **Clear**. If the Reset Trip Info prompt is turned on in the track settings, edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page. If track recording is turned on, a new track will start recording.

## To follow the active track

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

## To profile the active track

To profile the active track, from the Tracks Page, go to **MENU > Profile Active Track**. The Profile Page opens. For more information, see *The Profile Page* on page 71.

## To view statistics for the active track

To view statistics for the active track, from the Tracks Page, go to **MENU > View Active Track Statistics**.

You can view statistics for the entire track or for a section of the track; use the arrow keypad to scroll through the statistics pages. For descriptions of the statistics fields, see the *Info Fields Table* starting on page 95.

## To save the active track

1. Select **Save** to save the active track as a file and clear the active track memory.
2. Name and save the file.
3. On the track details page, edit the **Track** (name), **Color**, and **Comments** fields.

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

4. If the **Reset Trip Info** prompt is turned on, edit the check boxes and select **Reset Now**, or press **QUIT** to exit the page.

## Managing Track Files

Saved tracks are managed using GPX files; the number of track files you can save depends on the memory available. For more information about GPX files, see *File Management* on page 85.

*XMap users* See the supplemental online help on the DeLorme Wiki ([pn-series.wiki.delorme.com/xmap](http://pn-series.wiki.delorme.com/xmap)) for information about using XMap with the Tracks Page.

## File Menu

Use the File menu to manage track GPX files stored in the PN-60's internal memory or on an SD card in the device. To open the File menu, from the Tracks Page, go to **MENU > File**. The following options are available:

- ▶ **Open**—Open a list of GPX files in internal memory and on the SD card. Select the file you want to open and press **ENTER** to view it on the device.
- ▶ **Close**—Close the open GPX file.

- ▶ **Move to Internal/Move to SD Card**—Move the open file from the current stored location to the alternate location. For example, you can open a file from an SD card and move it to the device's internal memory.

## To view details for the open track

Open a saved track file using the File menu. Then, on the Tracks Page, select **Details**. The track details page opens.

## To edit details for the open track

On a track details page, you can customize the track name, color, and comments.

To edit a field, use the arrow keypad to highlight it and press **ENTER**. Use the available option (drop-down list, arrow keypad, or keyboard) to make changes.

Track	
Geocaching Trip	
Color	Time/Date
<input type="text"/>	08:34 PM 07-May-10
Distance	Trip Time
17.51 mi	01:10 :39
Comments	
<input type="text"/>	
Hide	Follow

Track Details

## To view or hide the open track on the map

The **View/Hide** button shows the available action. To view the track on the map, on the track details page, select **View**. The track displays on the map using the color in the Color field. To hide a track on the map if it is showing, on the track details page, select **Hide**.

## To follow the open track

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

## To play back the open track

While you play back a saved track, the PN-60's GPS receiver and active track recording are turned off. You must turn recording back on once you have finished playing back the track.

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 several pages.

- ▶ 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 profile the open track

To profile the open track, from the track details page, go to **MENU > Profile Track**. The Profile Page opens. For more information, see *The Profile Page* on page 6671.

## To view statistics for the open track

To view distance, elevation, speed, and trip statistics for the open track, from the track details page, go to **MENU > View Opened Track File Stats**.

You can view statistics for the entire track or for a section of the track; use the arrow keypad to scroll through the statistics pages. For descriptions of the statistics fields, see the *Info Fields Table* starting on page 95.

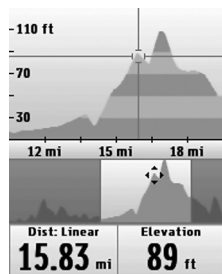
*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*



# The Profile Page

A track is a recording of points along the path you travel. Viewing a profile of a track gives you valuable information about the track's elevation—you can view the profile over track distance or time recorded while traveling. When the profile changes while you are stationary and tracking by time, the profile indicates changes in pressure that you can use to monitor weather changes. The Profile Page lets you view the elevation of the active track as it is recording or that of a saved track.

For more information about tracks, see *The Tracks Page* section starting on page 66.



Profile Details

## Viewing a Profile

You can open the Profile Page from the Home Page or from the menu on the Tracks Page.

The Profile Page shows two views of the track you are profiling. Press up or down on the arrow keypad to switch which view is active—the crosshair appears on the active view.

- ▶ **Detailed**—The upper section of the page shows the section of the track you are viewing. The initial view shows the track from its start to the current location (for an active track) or to the finish (for a saved track).
- ▶ **Overview**—The bottom section of the page shows a profile of the entire track.

## Time or Distance

You can view the track profile by distance along the track or by time travelled along the track.

To change the profile method, go to **MENU > Switch to Distance Profile** or **Switch to Time Profile**. The x axis of the profile graph reflects the method.

## Scale

Switching the type of scale used to measure changes in elevation gives you different views of the graph.

To change the scale type, go to **MENU > Switch to Static Scale** or **Switch to Dynamic Scale**.

- ▶ **Static**—The static scale adjusts the profile graph based on the maximum and minimum elevation; the same graph scale is maintained for the entire track, letting you compare current elevation to the rest of your trip. This is the default view .
- ▶ **Dynamic**—The dynamic scale adjusts based on the visible maximum and minimum zoom levels. As you pan the graph or zoom in or out, the graph changes to give you the best view.

## GPS Indicator

The GPS location is indicated by a green dot on the graph when you are within 100 feet of the track. The dot is in the center of the crosshair (unless you are panning along the profile). A red dot indicates there is no GPS fix within 100 feet of the track you are profiling.

## To profile a track

To view a profile for the active track, open the Profile Page. Track recording must be turned on to view an active profile.

To view a profile for a saved track, from the Profile Page, go to **MENU > File > Open**. Then, select the track file you want to profile and press **ENTER**. To close the file, go to **MENU > File > Close**.

## To switch the track view

To quickly change the track view from the active track to the open track file, go to **MENU > File > Switch to Profile Active Track/Switch to Profile Opened Track**.

## To view profile statistics

To view statistical information about the profile, from the Profile Page, go to **MENU > View Profile Statistics**. Use the right and left buttons on the arrow keypad to scroll through the statistics pages.

- ▶ **Start to Finish**—View speed, elevation, and trip statistics for the entire track.
- ▶ **Start to Cursor**—When you have panned along the track, view speed, elevation, and trip statistics from the track start to the track point at the cursor location.
- ▶ **Cursor to Finish**—When you have panned along the track, view speed, elevation, and trip statistics from the track point at the cursor location to the track finish.
- ▶ **Cursor Point Info**—When you have panned along the track, view coordinates, time/date, elevation, grade, speed, and GPS status for that specific point on the track.

## Panning and Zooming

Use the right and left arrows on the arrow keypad to move the crosshair—or cursor—along the active view in the profile.

- ▶ Pan along the track and press **ENTER** to view that area on the Map Page. Press **QUIT** to return to the profile.
- ▶ Use the **IN** button to zoom in to show a smaller area with more detail.
- ▶ Use the **OUT** button to zoom out and show a larger area with less detail.
- ▶ When you zoom in or pan to an area on the overview profile, the detailed profile matches the highlighted section in the overview.

## Info Fields

The info fields that display at the bottom of the Profile Page depend on your activity and whether you are navigating or tracking (normal GPS use). To access the Info Fields options, go to **MENU > Info Fields**.

For more information, see *Info Fields* on page 11 and *The Activities Page* section on page 17.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# 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 time, date, and location.



Sun/Moon Page

The Sun/Moon Page shows information for the current map center at the time and date indicated. For example, if you are in Maine and you pan the map to California, you see the position of the sun and moon in California for the time and date displayed.

## ***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 gray line represents a shadow to illustrate the path of the sun overhead. When the sun is directly overhead in summer months, the shadow is very short. As winter approaches and the sun travels lower through the sky the shadow indicator becomes longer. 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. 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**

To view information for a location other than your current GPS location, change the map center (for example, by

panning the map or viewing a waypoint). Then, open the Sun/Moon Page from the Home Page.

### **To change the time and date**

You can change the time and date to see different sun/moon information.

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**

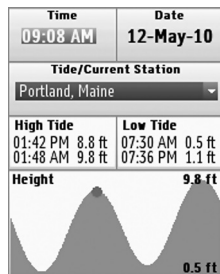
If you change the time and date on the Sun/Moon Page, you can reset it to the device's time and date.

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

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# The Tides Page

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



Tides Page

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 tide/current based on the time and date selected.

## To change the location

To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, open the Tides Page from the Home 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

Select the tide station from the **Tide/Current Station** drop-down list; the ten stations closest to the current map center are listed.

## To change the time and date

You can change the time and date to see different tide/current information.

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 Tides Page, you can reset it to the device's time and date.

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

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# 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 calculations are based on John Alden Knight's Solunar Tables, which use the cycle of the sun and moon to predict activity and feeding schedules.

Time	Date
12:25 PM	12-May-10
Coordinates: Lat/Lon N 43° 48.3960' W 70° 9.8880'	
Prediction <b>Good Day</b>	
Best Times 09:28 AM - 11:28 AM 09:44 PM - 11:44 PM	
Good Times 03:41 AM - 04:41 AM 04:06 PM - 05:06 PM	

Hunt/Fish Page

## To change the location

The coordinates shown on the Hunt/Fish Page are for the current map center. To view information for a location other than your current GPS location, change the map center (for example, by panning the map or viewing a waypoint). Then, open the Hunt/Fish Page from the Home Page.

## To change the date

You can change the date to see a prediction of the hunting and fishing conditions for a specific day.

When you view the Hunt/Fish Page, 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

To reset the date to the device's date, from the Hunt/Fish Page, go to **MENU > Reset Date**.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*



# The Settings Page

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Use the Settings Page options to modify the default settings on the PN-60.

## System

Use the System options to modify GPS/WAAS settings, select the battery type, turn USB power on or off, and view and manage memory information.

### To change system settings

From the Settings page, select **System**, and then select the option you want to change.

- ▶ **GPS Setting**—From the drop-down list, select the GPS option to use.
  - » **Normal**—Normal GPS use.
  - » **Power Saving**—Several settings are changed to optimize battery performance.

The screen backlight is turned off after 15 seconds.  
The GPS updates less often and WAAS is turned off.  
If the accelerometer detects no motion, the GPS is turned off after 30 seconds.  
The device goes into “doze mode” after 30 seconds.  
To wake up the PN-60, move it or press any button.

- » **Off**—Turns off GPS satellite tracking. See *To turn off GPS* on page 19.
- » **Demo Mode**—Turns Demo Mode on or off. See *To view or hide Demo Mode* on page 7.

- ▶ **Sleep when Stationary**—Select the check box to put the device in doze mode when it is stationary for more than 60 seconds.
- ▶ **Stealth Mode**—Select this check box to set sounds to Mute All and the backlight to Always Off.
- ▶ **WAAS**—From the drop-down list select **On** to use WAAS or **Off** if you don’t want to use it. See *GPS and WAAS Status* on page 18.
- ▶ **Battery Type**—From the drop-down list, select **Alkaline, Lithium, NiMH, or Li-ion (Rechargeable)**; See *Batteries and SD Card* on page 6. You must manually change the battery type when changing the type of battery you use to ensure the battery charge indicator displays correctly.

**Note about Li-ion batteries** Use only DeLorme Li-ion batteries. When you remove a Li-ion battery, the Battery Type will switch automatically to Lithium.
- ▶ **USB Power**—From the drop-down list, select **On** to

allow the device to be powered by a USB port on your computer. Select **Off** if you don't want to allow USB power.

## 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 the Settings Page, go to **System > Memory Use** to view:

- ▶ Internal memory use
- ▶ SD card memory use
- ▶ The number of waypoints/geocaches, tracks, and routes open on the device.
- ▶ The device's total capacity for storing waypoints/geocaches, tracks, and routes.

Memory Use		
My Data	Used	Capacity
Waypoints & Geocaches	591	1500
Track Points	1218	20000
Routes	3	100
Internal: 12058 MB free		
	16 %	
SD/MHC: 7752 MB free		
	0 %	

Memory Use

## Display

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



Display

## To change display settings

From the Settings Page, select **Display**, and then select the option you want to change.

- ▶ **Color Scheme**—From the drop-down list, select the color scheme (**Light**, **Dark**, or **Midnight**).  
**Note** The Midnight option uses the Dark color scheme with a high-contrast map.
- ▶ **Use Midnight at Sunset**—Select this check box to automatically switch to the Midnight color scheme between sunset and sunrise.
- ▶ **Allow Screen Rotation**—Select this check box if you

want the screen to rotate when you view the device upside down. When rotated, the arrow keypad adjusts to match the device's orientation.

- ▶ **Screenshots On**—Select the check box to take a screen capture when you press and hold the **Power** button and then press **ENTER**. A sound plays to confirm the screenshot. For more information about screenshots, see *Taking a Screenshot* on page 10.
- ▶ **Auto-adjust Backlight**—Select this check box if you want the device to automatically adjust the backlight based on the available light. If you manually change the backlight, the check box is cleared.
- ▶ **Backlight Intensity**—Use the arrow keypad to move the slider to the right or left to increase or decrease the intensity of the backlight. You can also access the backlight setting using the **Power** button; see *Power* on page 8.
- ▶ **Backlight Timer**—From the drop-down list, select the amount of time the backlight stays on before it dims to save power or select **Always On** or **Always Off**.

## Connect to Computer

Use the Connect to Computer options to determine what mode the device is in when you connect it to your computer with the USB cable.

## To change the connection settings

From the Settings Page, select **Connect to Computer**, and then select the option you want to change.

- ▶ **When Connected**—From the drop-down list, select the connection method the device will use when you connect it to your computer.
  - » **Use GPS**—Use this option if you are using a compatible DeLorme mapping program or Cache Register™ to sync your device—the program will automatically put the device in the correct transfer mode. This also allows you to use the device as an external GPS; for example, with a laptop.
  - » **Open SD Card**—Allows you to view an SD card in the device as a drive for manual file management.
  - » **Open Internal Drive**—Allows you to view the device's internal memory as a drive for manual file management.
- ▶ **Use XMap 7 Mode**—Allows you to use a PN-60 with XMap. For specific information about file management with XMap, visit the Delorme Wiki 71([pn-series.wiki.delorme.com/xmap](http://pn-series.wiki.delorme.com/xmap)).
- ▶ **Use Serial Port**—Select the check box to use a serial port connection for NMEA out only.

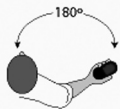
## Compass and Altimeter

Use the Compass & Altimeter options to activate or deactivate the electronic compass, the barometric altimeter, and the auto calibrate altimeter feature. You can also calibrate the electronic compass and the barometric altimeter.

For more information, see *Compass and Altimeter* starting on page 86.

### Calibrate: Step 1 of 3

1. Hold device level.
2. Pivoting elbow, swing device right to left.
3. Continue motion until you hear a tone.



Calibration – Step 1

## To change compass and altimeter settings

From the Settings Page, select **Compass & Altimeter**, and then select the option you want to change.

Select the check box next to an option to activate it.

- ▶ **Use Electronic Compass**—If this is not selected, the device uses the GPS compass.
- ▶ **Use Barometric Altimeter**—If this is not selected,

the device uses the GPS elevation.

- ▶ **Auto Calibrate Altimeter**—Allows the altimeter to automatically calibrate.

## To calibrate the compass or altimeter

From the Settings Page, go to **Compass & Altimeter > Calibrate**, select **Calibrate Compass** or **Calibrate Altimeter**, and then follow the on-screen instructions.

## Wireless

### PN-60w only

The wireless options allow you to turn the wireless antenna on and off and to pair your SPOT Communicator with the PN-60w.

- ▶ **Wireless Antenna On**—Select the check box to turn the wireless antenna on. Clear it to turn the antenna off.
- ▶ **Pair Communicator**—Select this option to pair the PN-60w and the SPOT Communicator. The SPOT Communicator Setup page opens.

## Sound

The Sound options control sounds and volume.

## To modify the sound settings

From the Settings Page, select **Sound**, and select the

option you want to change.

- ▶ From the drop-down list for each of the following options, select the sound you want to use or turn it off.
  - » **Sounds**
  - » **Button Press**
  - » **Message**
  - » **Power**
  - » **Turn Alert**
- ▶ **Volume**—To adjust the volume, use the arrow keypad to move the slider right or left.

## 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 the Settings Page, select **Time**, and then select the option you want to change.

- ▶ **Time Format**—From the drop-down list, select **Local 12 hr** or **Local 24 hr**.
- ▶ **Zone**—From the drop-down list, select your actual time zone or select **Automatic** to allow the device to update the time based on your GPS location.
- ▶ **Use Daylight Saving Time**—Select the check box to adjust the time for Daylight Saving Time.

## Units

Use the Units option to set the units of measure for the device.

### To modify the units settings

From the Settings Page, select **Units**, and then select the option you want to change.

From the drop-down list for each of the options, select the unit of measure you want to use:

- ▶ **Coordinates: Primary**—Degrees; Degrees, Minutes; Deg, Min, Sec; UTM/UPS; or USNG/MGRS.
- ▶ **Datum: Primary**—Various. The default datum is WGS84.
- ▶ **Coordinates: Secondary**—UTM/UPS; Degrees; Degrees, Minutes; Deg, Min, Sec; or USNG/MGRS.
- ▶ **Datum: Secondary**—Various.
- ▶ **Measures**—Statute Miles, Kilometers, Nautical Miles/ Feet, or Nautical Miles/Meters.
- ▶ **Pressure**—Inches of Mercury, Millibars, or Pascals.
- ▶ **Bearing**—True or Magnetic. True represents the true location of the North Pole. Magnetic sets the device to use magnetic bearings; this is useful when comparing the device with a digital compass for use with maps that have magnetic declination built into the map grid.

**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.

## Page Order

You can change which pages display when you press the **PAGE** button and the order in which they display. You cannot remove the Map Page from the **PAGE** button order.

### To modify the PAGE button order

From the Settings Page, select **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 page up or down in the list.

## Owner Information

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

To enter owner information, go to **Settings > 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, go to **Settings > About this Device**. To view license information, highlight **License** and press **ENTER**.

## Restore Default Settings

To restore all of the Settings Page options at the same time, go to **Settings > Restore Default Settings**. To restore default settings for a specific options page, select **Restore Default Settings** on that page.

## Restore Factory Settings

To reset all the settings on your device to the "out-of-the-box" status and delete all tracks, routes, waypoints, and geocaches in memory, go to **Settings > Restore Factory Settings**. Maps you have added to the device will not be deleted.

*Visit the DeLorme Wiki at [wiki.delorme.com](http://wiki.delorme.com) for more information. The latest version of the User Manual is always available for download.*

# Additional Information

## File Management

Waypoints (including geocaches) and tracks are managed using GPX—or GPS Exchange Format—files. A GPX file stores location, elevation, and time information and is used to transfer data between your PN-60 and your computer. GPX files can be saved to the PN-60's internal drive or on an SD card that you put in the device.

**Tip** *On the Waypoints, Geocaches, Tracks, and Profile pages, press **MENU** and select **File** to view the available file management options. For more information about the options available on each page, see that section of the manual.*

## Creating a New GPX File on the PN-60

- ▶ When you save a track, a GPX file is created.
- ▶ When you mark a waypoint or geocache, if a waypoint file is open, the new waypoint is saved to the open file. If a waypoint file is not open, a new file is created.

## Syncing GPX Files

- ▶ **Earthmate® GPS Sync**—With DeLorme Topo North America™ 9.0, you can quickly send GPX files from your desktop to the PN-60's internal memory or an

SD card that is in the device or in an SD card reader. When you return from your trip, you can send files back to the desktop to keep all your data in sync. For more information about Earthmate GPS Sync, see the Help in DeLorme Topo North America 9.0.

- ▶ **DeLorme Cache Register™**—Use Cache Register to sync Geocaching.com Pocket Query GPX files with your device. For more information, see *The Geocaches Page* section starting on page 53.
- ▶ **Manual Transfer**—If you are not using DeLorme Topo North America, on the device go to **Settings > Connect to Computer > When Connected > Open SD Card** or **Open Internal Drive**. Then, connect the PN-60 to your computer with the USB cable and drag and drop GPX files into the Waypoints or Tracks folder. You can also use an SD card with an SD card reader.

## Transferring Map Files

With Earthmate GPS Sync in DeLorme Topo North America, you can send map packages between your desktop and the PN-60's internal memory or to an SD card in the device or in an SD card reader.

**Tip** Use the SD card reader to quickly transfer large maps. Send maps you use frequently to the device's internal memory.

## Compass and Altimeter

The PN-60 comes equipped with two sensors; an electronic compass and a barometric altimeter.

- ▶ The electronic compass works when the PN-60 is 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 elevation adjusted to mean sea level 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 option is available from the Satellite Page and the Compass Page, and is under the Compass & Altimeter option on the Settings Page.

In addition, from the Settings > 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 & Altimeter

## Compass Calibration

- ▶ Calibrate the electronic compass the first time you use the PN-60.
- ▶ Make sure you are outside and away from magnetic fields, such as those caused by 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 the Home Page, go to **Settings > Compass & Altimeter > Calibrate > Calibrate Compass**.
2. Follow the on-screen instructions to calibrate the compass.

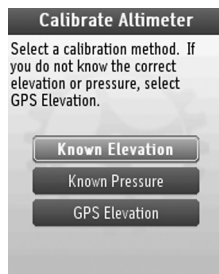
## Altimeter Calibration

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. Adjustments are made 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 Elevation: Barometer 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 **Settings > Units > Pressure**.



Altimeter Calibration

## To calibrate the altimeter

1. From the Satellite Page or the Compass Page, go to **MENU > Calibrate > Calibrate Altimeter**.  
OR  
From the Home Page, go to **Settings > 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.

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**.

## Resources

### *DeLorme*

- ▶ DeLorme Wiki ([wiki.delorme.com](http://wiki.delorme.com))
- ▶ DeLorme website ([delorme.com](http://delorme.com))
- ▶ DeLorme Community Forums ([forum.delorme.com](http://forum.delorme.com))
- ▶ The DeLorme Weblog ([blog.delorme.com](http://blog.delorme.com))

### *SPOT Communicator*

- ▶ SPOT website ([findmespot.com](http://findmespot.com))

## Contact Information

### DeLorme Technical Support

Visit [support.delorme.com](http://support.delorme.com) to access the DeLorme Technical Support Knowledge Base, get answers to frequently asked questions, 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.

### DeLorme Customer Service

For general questions about returns, your order status, or problems with shipments, phone 800-511-2459 (Monday through Friday) or send an email to [sales@delorme.com](mailto:sales@delorme.com). To place additional orders, phone 800-561-5105.

### SPOT Communicator

For questions about the device, call DeLorme Customer Service. For questions about SPOT products and services, visit [findmespot.com](http://findmespot.com).

### 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 device
- ▶ The RMA tracking number that you received when you called DeLorme
- ▶ Your return shipping address
- ▶ Your daytime telephone number

If you have contacted DeLorme Technical 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

You must use a shipping service that provides tracking information. For the latest warranty and repair information, visit [delorme.com/gpsrepair](http://delorme.com/gpsrepair).

## Specifications

### Earthmate PN-60/PN-60w

#### Physical Specifications

- ▶ Case: IPX-7 waterproof, impact resistant, and rugged
- ▶ Size: 5.25" x 2.43" x 1.5"
- ▶ Weight: 5.35 oz (without batteries)

#### 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 electromagnetic interference environments
- ▶ Operating temperature range: -4°F to +167°F (-20°C to +75°C)
- ▶ Storage temperature range: -49°F to +212°F (-45°C to +100°C)
- ▶ 3-axis electronic compass with accelerometer
- ▶ Barometric altimeter
- ▶ 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. and Canadian base map data with secondary and connector roads along with major highways and roads for the entire world.

#### Power and Memory

- ▶ Power (without SD card):
  - » Full power: 17 hours with 2 AA alkaline batteries; 29 hours with 2 AA Lithium batteries

[450mW typical (600mW with full backlight)]

- » Power save: 30 hours with 2 AA alkaline batteries; 50 hours with 2 AA Lithium batteries [< 270mW]
- ▶ Fast USB 2.0 data transfer
- ▶ 3.5 GB available internal flash memory (SE model: 15.5 GB available internal flash memory)
- ▶ Supports SD and SDHC memory cards; up to 32 GB
- ▶ Uses 2 AA batteries or a DeLorme Li-on rechargeable battery.

### ***PN-60w Wireless Radio***

- ▶ Radio Technology: IEEE 802.15.4 compliant
- ▶ Transmitter Bit Rate: 250kb/sec (maximum)
- ▶ Frequency Spectrum: 2.4GHz unlicensed band
- ▶ Transmitter Power (peak): 10mW
- ▶ Operating Temperature Range: -4°F to +167°F (-20 °C to +75°C)
- ▶ Storage Temperature Range: -49°F to 212 °F (-45°C to +100°C)
- ▶ Active memory holds 20,000 track points: 1,500 waypoints; 100 routes

### **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.

### **FCC/IC Notice**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC ID: UTNPN60W403M

This Class B digital apparatus complies with Canadian ICES-003.

C'et appareil numerique de la classe B est conforme a la norme.

NMB-003 du Canada

IC: 6853A-PN60W403M

## 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.

**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-60 GPS will be free from defects in materials and workmanship for 1 year from the date of purchase. If your Earthmate PN-60

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.

## Copyright Information

- ▶ Fonts
  - » Contains iType™ and Felbridge™ Condensed from Monotype Imaging Inc. Monotype® is a trademark of Monotype Imaging Inc. registered in the United States Patent and Trademark Office and may be registered in certain jurisdictions. Felbridge is a trademark of Monotype Imaging Inc. and may be registered in certain jurisdictions.
  - » Some fonts used are derived from the DejaVu fonts, which are derived from Bitstream Vera, Copyright 2003 by Bitstream, Inc. All Rights Reserved.

- ▶ Geocaching icons (Copyright © Groundspeak Inc.) used with permission.

## Specifications

### SPOT Communicator

#### Physical Specifications

- ▶ Case: IPX-7 waterproof, impact resistant, and rugged
- ▶ Size: 2.6" x 3" x 1.25"
- ▶ Weight: 3.7 oz.

#### Battery Life and Usage

Use only AA Lithium batteries in your SPOT Communicator. Alkaline or other battery technologies, including rechargeable batteries, are not recommended. In an emergency situation, if you have access to alkaline or other battery technologies, the SPOT Communicator might work but will not offer the specified battery life or performance.

#### Power

- ▶ SOS mode: Up to 7 days of messages
- ▶ Type & Send mode: Up to 5 days of messages
- ▶ Track Progress mode: Up to 10 days of messages
- ▶ Standby mode: Up to 4 months

Operational and environmental conditions can decrease the battery life achieved under normal usage conditions.

See [findmespot.com](http://findmespot.com) for more details regarding battery life.

## Operating Conditions and Specifications

The SPOT Communicator must have an unobstructed view of the sky, either outdoors or in a glass enclosed area, such as a vehicle dashboard or sunroof. Visit [findmespot.com](http://findmespot.com) for more detailed information.

## Coverage

SPOT works around the world, including virtually all of North America, Europe, Australia, and portions of South America, Africa, and Asia, as well as hundreds or thousands of miles off shore of these areas. It is important that you check coverage for your destination at [findmespot.com](http://findmespot.com) before traveling.

## Premium SMS Service

Additional charges may apply in some regions. Standard text messaging charges from your mobile phone provider may also apply. Visit [findmespot.com](http://findmespot.com) for more information.

## Troubleshooting

The SPOT Communicator performs a self-diagnostic test each time it is powered on. SPOT recommends that you

send and verify a Check-in/ OK message before each trip. This also allows you to evaluate your entire messaging system—from the operational condition of the SPOT Communicator to the readiness of those on your contact list. See the FAQ section on [findmespot.com](http://findmespot.com) for more information.

## Limited Warranty

Spot LLC warrants that your SPOT Satellite Communicator will be free from defects in materials and workmanship for a warranty period of 1 year from the date of purchase. If your SPOT Communicator fails in normal use, Spot LLC will, at its sole option, either repair or replace the unit with a new or refurbished comparable unit at no charge for labor and materials; however, the customer will be responsible for shipping charges. New or refurbished parts may be used for repairs and replacements. Repaired or replaced product will be warranted for the balance of the original warranty. The warranty does not cover failures due to abuse, misuse, accidents, or unauthorized disassembly or modification or any damage sustained during shipment of the product. Spot LLC has no responsibility for any warranty claims made after the 1 year limited warranty expires.

EXCEPT AS PROVIDED ABOVE, THE PRODUCT IS SOLD “AS IS” WITHOUT ANY EXPRESS OR IMPLIED

WARRANTIES FOR THE PRODUCT, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES REGARDING THE CONDITION, DESIGN, SPECIFICATIONS, WORKMANSHIP, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT, OR ANY WARRANTIES THAT THE PRODUCT IS FREE FROM LATENT DEFECTS OR DEFICIENCIES, OR THAT THE PRODUCT IS FREE FROM INFRINGEMENT OF ANY PATENT, TRADEMARK, COPYRIGHT OR PROPRIETARY RIGHT OF ANY THIRD PARTY AND SUCH WARRANTIES ARE EXPRESSLY DISCLAIMED. THIS LIMITED WARRANTY PROVIDES THE SOLE AND EXCLUSIVE REMEDY FOR ANY DEFECTS IN THE PRODUCT. IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL OR PUNITIVE DAMAGES, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. OUR LIABILITY IS LIMITED TO THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THE APPLICABILITY OF THE ABOVE LIMITATIONS AND EXCLUSIONS MAY VARY FROM STATE TO STATE.

## **FCC/IC Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to

Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device complies with the requirements for radio astronomy site avoidance as specified by the Globalstar National Science Foundation agreement of 2001. It is compliant with CFR 25.213.

This device automatically adjusts to transmission frequency according to its location and is compliant with international regulatory requirements.

This Class B digital apparatus complies with Canadian ICES-003.

## **Certifications**

ROHS and WEEE compliant

Certified to FCC and CE emissions, immunity, and safety regulations.

Meets FCC part 25 regulations, Canada type approval, CISPR Publication 22 (1985 1st edition), RTTE Directive (1999/EC), and IEC 60950 safety standard.

Visit [findmespot.com](http://findmespot.com) for the latest certification information.

Spot LLC ([findmespot.com](http://findmespot.com)) is not affiliated with Spot Image ([spotimage.com](http://spotimage.com)).



# Info Fields Table

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Info fields are used to provide information you need when using the PN-60. On the Map, Compass, Trip Info, and Profile Pages, you can customize the info fields. For more information, see *Info Fields* on page 11.

## Notes

- ▶ Info field labels may be abbreviated; for example, Velocity Made Good is labeled VMG.
- ▶ Time is expressed as hours:minutes AM/PM. Go to **Settings > Time** to change the time format (12 hour/24 hour) and to turn Daylight Saving Time on or off.
- ▶ Dates are expressed as day-month-year (for example, 01-JUL-10).
- ▶ When information is unavailable, the info field contains dashes.
- ▶ You can change the unit of measure for many info fields; the location on the Settings Page for changing the settings is indicated. For more information, see *The Settings Page* section on page 79.

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. (Units > Bearing)
Battery Life	The percentage of battery power that remains. (System > Battery Type)
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 green when the device is moving and gray when no movement is detected. (Units > Bearing)

<b>Info Field</b>	<b>Description</b>
Coordinates: Primary	The primary coordinates format for the current GPS location, cursor position, or map center in the primary format. The default is Lat/Lon. (Units > Coordinates: Primary)
Coordinates: Secondary	The secondary coordinates format for the current GPS location, cursor position, or map center in the secondary format. The default is UTM/UPS. (Units > Coordinates: Secondary)
Course	The direction of travel on a route from the starting location to the destination (finish or next stop); expressed in degrees. (Units > Bearing)
Device Odometer	The total distance traveled in all trips. (Units > Measure)
Distance: Climbing	Profile Page only. The cumulative linear distance spent in increasing elevation. (Units > Measure)
Distance: Descending	Profile Page only. The cumulative linear distance spent in decreasing elevation. (Units > Measure)
Distance: Linear	Profile Page only. The cumulative linear distance from the start to the point of reference, not taking into account distance caused by elevation changes. (Units > Measure).
Distance: Terrain	Profile Page only. The cumulative distance along the ground, including any distance increases caused by changes in elevation. (Units > Measure)
Distance to Finish	The distance from the current location to the route finish. (Units > Measure)
Distance to Next Stop	The distance from the current location to the next stop in the route. (Units > Measure)

<b>Info Field</b>	<b>Description</b>
Distance to Next Turn	The distance from the current location to the next turn in the route. (Units > Measure)
Elevation	The altitude (height) above or below sea level. (Units > Measure)
Elevation: Barometer	The altitude (height) above or below sea level based on the barometric altimeter reading. If the altimeter is calibrating, a red exclamation point displays. (Units > Measure)
Elevation: Climbing	Profile Page only. The cumulative elevation gained while climbing; expressed in distance. (Units > Measure)
Elevation: Descending	Profile Page only. The cumulative elevation lost while descending; expressed in distance. (Units > Measure)
Elevation: GPS	The altitude (height) above or below sea level based on the GPS reading; expressed in distance. (Units > Measure).
Elevation: Maximum	The maximum elevation achieved; expressed in distance. (Units > Measure)
Elevation: Minimum	The minimum elevation achieved; expressed in distance. (Units > Measure)
Elevation: Net Gain	Profile Page only. The net change in elevation from the start to the point of reference; expressed in distance. (Units > Measure)
ETA at Finish	The estimated time of arrival at the route finish; expressed as hours:minutes AM/PM, based on the device time. (Units > 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 device time. (Units > 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 device time. (Units > Time)

<b>Info Field</b>	<b>Description</b>
Finish	The Finish label as it appears in the route directions.
GPS Accuracy	The calculated accuracy of the GPS; expressed in distance. (Units > Measure)
GPS Status	The current status of your GPS device. No Fix, 2-D, or 3-D. WAAS below the status indicates a WAAS fix. (Settings > System > GPS Setting and WAAS)
% Grade	The incline of the terrain expressed as a percentage (the rise in elevation over the distance traveled multiplied by 100).
% Grade: Average	The average percent grade from the start to the point of reference.
Heading	The current direction of travel; expressed in degrees. If electronic compass accuracy is poor, a red exclamation point displays. (Units > Bearing)
Moonrise/Moonset	The time of day at which the moon will rise and set, based on GPS location or current map center. (Units > Time)
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.
Off Course	The perpendicular distance between the current location and the route; expressed in distance. (Units > Measure)
Pressure: Ambient	The surrounding barometric pressure reading. (Units > Pressure)
Pressure: MSL	MSL is Mean Sea Level. The surrounding barometric pressure reading adjusted to the device's elevation reading. (Units > Pressure)

<b>Info Field</b>	<b>Description</b>
Speed	The current rate of travel for the device; expressed in distance/time. (Units > Measure and Time)
Speed: Average	The average speed of the device including stop time; expressed in distance/time. (Units > Measure and Time)
Sunrise/Sunset	The time of day at which the sun will rise and set, based on GPS location or current map center. (Units > Time)
Time/Date	The time of day and date based on current GPS location. (Units > Time)
Time to Finish	The calculated time to the route finish based on road classifications and default speed settings. (Units > Time)
Time to Moonrise/set	The time remaining until the moon rises and sets, based on GPS location or current map center. (Units > Time)
Time to Next Stop	The calculated time to the next stop in the route based on road classifications and default speed settings. (Units > Time)
Time to Next Turn	The calculated time to the next turn in the route based on road classifications and default speed settings. (Units > Time)
Time to Sunrise/set	The time remaining until the sun rises and sets, based on GPS location or current map center. (Units > Time)
Trip: Odometer	The total distance the GPS device has been moving since trip info was reset. (Units > Measure)
Trip: Time Moving	Total time GPS device has been moving since trip info was reset. (Units > Time)

<b>Info Field</b>	<b>Description</b>
Trip: Time Stopped	The total time the GPS has been tracking but not moving in the current trip, since the last time trip info was reset. (Units > Time)
Trip: Time Total	The total time the GPS has been tracking, both moving and stopped. (Units > Time)
Velocity Made Good	May be abbreviated as VMG. The component of the current speed that is in the direction of the route destination; expressed in distance per unit of time. (Units > Measure and Time)
Vertical Speed	The current rate of vertical travel for the device; expressed in distance per unit of time. (Units > Measure and Time)

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## **Batteries**

The Earthmate® PN-60 GPS devices 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.



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