

 **West Marine**[®]

76CS Plus
by  **GARMIN**[®]

MADE EXCLUSIVELY FOR
LOOK FOR OUR PLUS FEATURES
WEST MARINE

Owner's Manual





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INTRODUCTION

Thank you for choosing the 76CS Plus, which utilizes the proven performance of Garmin GPS and full-featured mapping to create an unsurpassed portable marine and automobile navigation device. Take a moment to compare the contents of this package with the packing list on the outside of the box. If any pieces are missing, contact your Garmin dealer immediately.

About This Manual

To get the most out of your new navigation system, take time to read this manual and learn the operating procedures for your unit. This manual is organized into the following nine sections:

The **Introduction** contains the Table of Contents. The **Getting Started** section provides an overview of the unit, how to turn the unit on, and how to simulate navigation.

The **Basic Operation** section provides information about using your 76CS Plus, such as finding locations and making routes.

For information about initiating navigation and following a route, refer to the **Navigating In the Sea and Land Modes** section.

The **Main Pages** section describes each of the pages in the default page sequence as well as their options. The **Additional Features** section describes pages and features found in the Main Menu and Setup Menu.

To learn how to change the settings of the 76CS Plus, read the **Customizing Your 76CS Plus** section.

The **Appendix** contains specifications, optional accessories, maintenance information, and other product information. **Read the Safety Information for information about installing and using your 76CS Plus safely and responsibly.**

An **Index** is provided at the end of the manual for reference.





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Caring for Your 76CS Plus

The 76CS Plus is constructed of high quality materials and does not require any service or maintenance other than cleaning.

Cleaning the Unit

Clean the unit using a cloth dampened with a mild detergent solution and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Storing the 76CS Plus

Do not store the 76CS Plus where prolonged exposure to temperature extremes may occur (such as in the trunk of a car) as permanent damage may result. User information, such as waypoints and routes, is retained in the unit's memory without the need for external power. It is always a good practice to back up important user data by manually recording it or downloading it to a PC (transferring it to MapSource).

Immersing the Unit in Water

The 76CS Plus is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the unit. After submersion, be certain to wipe and air dry the unit before reuse or charging.

Support and Repairs

To resolve problems that cannot be remedied using this guide, contact Garmin Product Support in the U.S.A. at 800/800.1020 or Garmin Europe at 44/0870.8501241.

The 76CS Plus has no user-serviceable parts. Should you ever encounter a problem with your unit, please take it to an authorized Garmin dealer for repairs.

The 76CS Plus is fastened shut with screws. Any attempt to open the case to change or modify the unit in any way will void your warranty and may result in permanent damage to the equipment.

To read the Warranty, refer to page 103.



GETTING STARTED

Unit Overview

The 76CS Plus is an all-in-one, versatile color handheld marine and automobile navigator—perfect for land or sea. This portable GPS navigator features a 256-color TFT display that is easy to read in bright sunlight, a built-in basemap, and automatically generated routes with turn-by-turn directions.

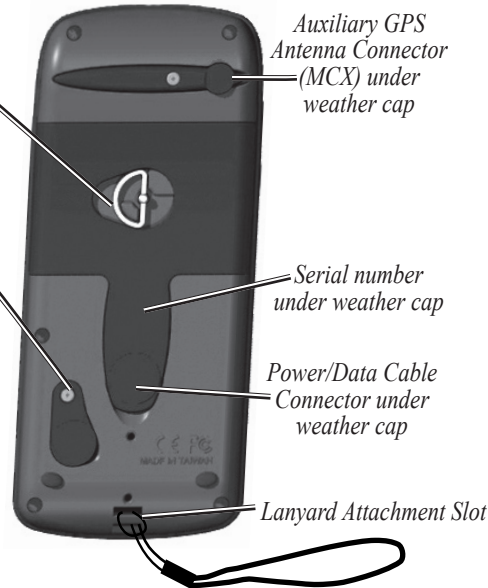


Antenna

Battery Compartment:
Turn D-Ring 1/4 turn counter-clockwise and lift to remove cover.

USB Connector
under weather cap

IMPORTANT NOTE:
Before you connect the USB Cable to the unit, install the included MapSource Trip and Waypoint Manager software provided with this unit. USB Drivers will be installed with the MapSource software.



Auxiliary GPS Antenna Connector (MCX)
under weather cap

Serial number
under weather cap

Power/Data Cable Connector
under weather cap

Lanyard Attachment Slot





Powering the 76CS Plus

Your 76CS Plus can be powered by batteries or using external power.

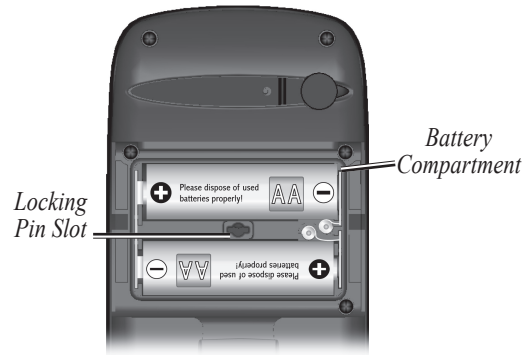
Installing the Batteries

The 76CS Plus operates on two “AA” batteries (not included). Alkaline or NiMH batteries may be used. See page 77 for setting the battery type. Stored data will not be lost when batteries are removed. Install the batteries in the back of the unit, as described below.

To install batteries:

1. Lift the D-Ring and turn it counter-clockwise 1/4 turn. Lift off the battery cover.
2. Insert the batteries, observing the proper polarity. A polarity diagram is molded into the battery compartment.
3. Reinstall the battery cover by reinserting the locking pin in the back of the unit. Turn the D-Ring 1/4 turn clockwise to lock in place.

For more information about using and disposing of batteries, refer to page 89.



Using External Power

To save battery life, you can use an external power source to provide power to your 76CS Plus.

To use external power:

1. Lift the rubber weather cap to expose the power connector on the back of the unit. Refer to the image on page 1 for connector location.
2. Align the notches and push the plug into the connector until fully seated.
3. Plug the 12 Volt adapter into an available AC outlet, or cigarette lighter receptacle if you have a Cigarette Lighter Adapter.

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Turning On the 76CS Plus

The first time you turn on your new 76CS Plus, the receiver must collect satellite data and determine its present position. To ensure proper initialization, the 76CS Plus is shipped from the factory in AutoLocate mode, which allows the receiver to “find itself” anywhere in the world. Before you turn on the unit to start initialization, be sure that the antenna has a clear and unobstructed view of the sky to receive satellite signals.

To turn on and off the 76CS Plus:

1. Press and hold the **Power** key. When the unit powers on, the splash screen image appears.
2. Press **ENTER** to display the Warning page.
3. Read and be sure you understand the warning. Press **ENTER** to continue.
4. Press **PAGE** to scroll through the pages.
5. To turn off the 76CS Plus, press and hold the **Power** key again.

After you turn on your 76CS Plus, a window appears that lists any user settings you have changed.

Adjusting the Backlight

You may want to adjust the backlight to see the display better.

To adjust the backlight level:

1. Press and quickly release the **Power** key.
2. Press the **Rocker** key Up to increase the brightness or Down to decrease. You can also press and release the **Power** key to adjust the slider to low, middle, and high.



3. Press **ENTER** or **QUIT** to close the Backlight adjustment window.

Extensive use of backlighting, WAAS, and beep tones significantly reduces battery life. To disable WAAS, see page 6. To mute the beep tones, see page 79.

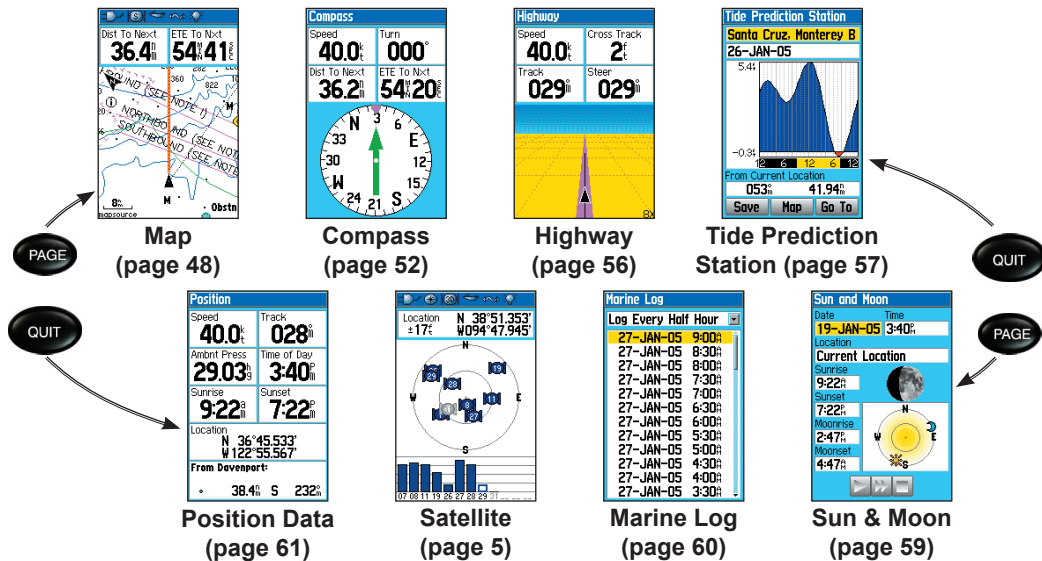




Main Page Sequence

The main pages are linked together in a series that you can cycle through by pressing the **PAGE** key and the **QUIT** key. Each page also has an options menu that provides additional features and settings. To view the options menu, press the **MENU** key.

By default, the page sequence features eight main pages: the Map, Compass, Highway, Tide Prediction Station, Sun & Moon, Marine Log, Satellite, and Position Data pages. You can change the order of the sequence and add more pages to the sequence; see page 80 for information.





Getting Satellite Signals

After you turn on the 76CS Plus, the unit automatically begins searching for satellites. It may take a few minutes to acquire satellites and display your current location on the map. Be patient as the unit acquires satellite data. To get signals more quickly, be sure you have a clear view of the sky.



NOTE: *While acquiring satellites, the Map page may display the wrong location, such as China. This does not mean your unit has the wrong data loaded; it simply means you need to wait a few more minutes to acquire satellites and find your current location.*

Viewing GPS Status

The Satellite page provides a visual reference of satellite acquisition, receiver status, and accuracy. The sky view and signal strength bars give an indication of what satellites are being tracked. Press the **PAGE** key to view the Satellite page.

While the receiver is gathering satellite signals and establishing your position fix, “Locating Satellites” is displayed on the Satellite page.

As the receiver locks onto satellites, a signal strength bar appears for each satellite in view, with the satellite’s number below the bar. Numbers above 33 indicate WAAS satellites.

The progress of satellite acquisition is shown in three stages:

- **No signal strength bar**—the receiver is looking for the satellite indicated.
- **Empty signal strength bar**—the receiver has found the satellite and is collecting data.
- **Solid signal strength bar**—the receiver has collected the necessary data from the satellite.

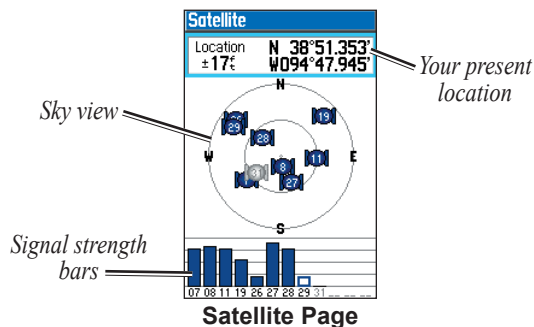
As soon as the 76CS Plus has collected the necessary data from the satellites to calculate a fix, the status field indicates the status of the receiver. The unit then updates its position, date, and time.





GETTING STARTED > GETTING SATELLITE SIGNALS

The sky view shows a birds-eye view of the position of each satellite relative to the receiver's last known position. The outer circle represents the horizon (North Up), the inner circle represents 45° above the horizon, and the center point represents a position directly overhead. Press **MENU** to set the sky view to a Track Up configuration, causing the top of the sky view to align along your current track heading.



To learn about GPS, refer to “Learning about GPS” on page 94.

Satellite Page Options

Press **PAGE** or **QUIT** repeatedly to open the Satellite page. Then press **MENU** to open the options menu.

Start/Stop Simulator—activates and deactivates simulator mode, which is particularly helpful when learning how to use your unit.

WAAS On—enables WAAS. Refer to page 95 for more information about WAAS.

Track/North Up—orients the sky view display on the Satellite page to North Up or Track Up.

Multicolor—changes each satellite bar and icon to a specific color. Each satellite shown is a unique color.

New Altitude—allows you to manually enter your altitude, which helps the unit calculate your position more accurately until it establishes a 3D position fix.

New Location—allows you to enter a new location using the map, which helps the unit calculate your position more accurately until it establishes a 3D position fix.





Calibrating the Sensors

Before you navigate, you need to calibrate the electronic compass and the altimeter.

Calibrating the Electronic Compass

You need to calibrate the electronic compass outdoors the first time you use the 76CS Plus and each time you install new batteries.

To calibrate the electronic compass:

1. Go outside and away from objects that generate a magnetic field, such as buildings.
2. Press the **MENU** key three times to open the Setup Menu.
3. Highlight **Calibration** and press **ENTER**.
4. Highlight **Compass** and press **ENTER**.
5. Press **ENTER** to begin calibrating the compass. Follow the on-screen directions.

Hold the unit level and adjust your turning speed as instructed by the on-screen messages. If “Calibration Failed” displays, repeat the process.

When using the compass, hold the unit level and away from objects that generate magnetic fields.

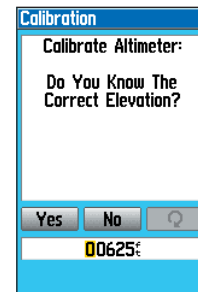
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Calibrating the Altimeter

You can calibrate the altimeter to increase its accuracy. You must know the elevation or pressure at your current location; use a reliable source.

To manually calibrate the altimeter:

1. Press the **MENU** key three times to open the Setup Menu.
2. Highlight **Calibration** and press **ENTER**.
3. Highlight **Altimeter** and press **ENTER**.
4. To enter the elevation, highlight **Yes** and press **ENTER** on the first screen. If you do not know the elevation, select **No** to use the pressure option. If you do not know the pressure, select **No** to use the default GPS elevation.
5. Use the **Rocker** key to enter the new elevation or pressure. Press **ENTER** when finished.
6. Highlight **OK** and press **ENTER** to finish.



Entering the current elevation.





Learning about the Keys and Icons

The unit's keys provide quick access to a variety of features. The Status Bar icons provide a visual indication of the status of many system operations.

Learning about the Keys



Press the **IN** key to adjust the map scale to show a smaller area with more detail (zoom in). When a long list is displayed, press **IN** to scroll down the list.



Press the **OUT** key to adjust the map scale to show a larger area with less detail (zoom out). When a long list is displayed, press **OUT** to scroll up the list.



Press the **PAGE/MODE** key to cycle through the main pages or exit a page. Press and hold to switch usage modes.



Press **MENU** to open a menu for the current page. Press twice to open the Main Menu.



Press **ENTER/MARK** to select an option, enter data, and to accept the selected value. Press and hold to mark your current location as a waypoint.



Press **QUIT** to cycle through the main pages, close a submenu page, or cancel an unintended function. Press and hold to turn the compass on and off.




Press and hold the **Power** key for more than one second to turn the unit on and off. Press and release to adjust the backlighting.



Press the **NAV/MOB (Navigate/Man OverBoard)** key to display the Navigate Menu. While in the sea modes, press and hold for more than one second to activate the Man OverBoard (MOB) function.



Use the **Rocker** key to highlight options and to enter data. Also use to move the arrow  on the Map page.













Viewing the Status Bar Icons

At the top of each page, a Status Bar provides current status information for several unit features.



Status Bar

-  Batteries are providing power to the unit. The Battery Power icon displays the remaining power as the battery becomes depleted.
-  An auxiliary source (AC or DC Adapter) is providing power to the unit.
-  The Electronic Compass is on.
-  The unit is searching for satellite signals.
-  Three satellites have been received and a two-dimensional fix has been attained.
-  Four or more satellites have been received and a three-dimensional fix has been attained.
-  The unit is in Powerboat mode.
-  The unit is in Sailboat mode.

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The unit is in Automotive mode.



The unit is in Off Road mode.



USB cable is connected to the unit and a PC.



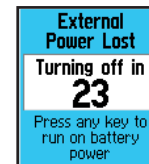
Backlight is on. When you turn on the unit the backlight is off. When on, the backlight uses a significant amount of battery power.



The Alarm Clock is set.

Understanding On-Screen Messages

When a significant event occurs, such as losing external power, an on-screen message displays. After reading the message, press **ENTER** to close the window.



On-Screen Messages





What is the Difference Between the Modes?

The 76CS Plus has four usage modes. Use the mode that best suits your navigation needs.

Powerboat Mode

Use Powerboat mode when you are operating a boat with a motor. Powerboat mode focuses on route navigation: you can create a route and then navigate it later. Powerboat mode is similar to Sailboat mode.

Sailboat Mode

Use Sailboat mode when you are operating a sailboat. It focuses on Go To operation, meaning you can find an item and go to it.

Automotive Mode

Use Automotive mode when you are driving an automobile on streets or highways. In this mode, the 76CS Plus automatically generates turn-by-turn routes to a specified location.

Off Road Mode

Use Off Road mode when you are using an off-road vehicle, such as an ATV or snowmobile. In this mode, the 76CS Plus automatically generates a route to your selected destination, but the route will not follow roads. Off Road is also very similar to the operation in Sailboat and Powerboat modes.

Which Mode Should I Use?

The mode you use is entirely dependent upon what you are doing. If you are driving a car and need turn-by-turn directions to your destination, use Automotive mode. If you are cruising your trawler around, you may want to use Powerboat mode. The choice is yours!

How do I Switch Modes?

Press and hold the **PAGE/MODE** key. A window appears displaying the four modes. Use the **Rocker** key to highlight the mode you want to use and press **ENTER**.



Using the 76CS Plus

This section explains how to enter and select information with the 76CS Plus.

Understanding Terms

The 76CS Plus advanced keypad system is designed to allow quick, convenient selection of navigation options and data entry. When you are directed to press a key, you should press and quickly release the key. If the key needs to be held down for a period of time to activate a secondary function, the instructions will tell you to do so. The following terms are used throughout this manual:

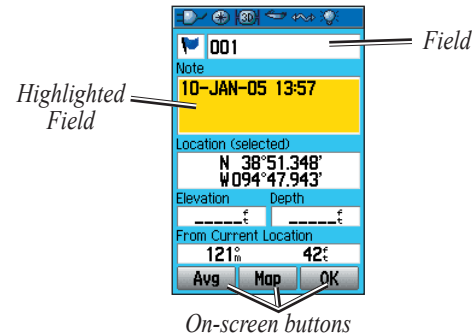
Highlight—when a field is selected on the screen, it is highlighted in yellow. Move the highlight Up, Down, Left, or Right with the **Rocker** key to select individual fields. Moving the highlight to a given location allows you to make a selection, begin data entry, or scroll through a list.

Field—the place where data is entered or an option is displayed. Select (highlight) a field using the **Rocker** key to begin entering data or selecting options.

On-Screen Button—similar to “field.” Use the **Rocker** key to highlight a button and press **ENTER**.

Options Menu—each page has a menu of options that you access by pressing the **MENU** button.

Default—the factory setting saved in the unit’s memory. You can change the settings as you like, but you can also revert to the factory (default) settings when you select **Restore Defaults**.



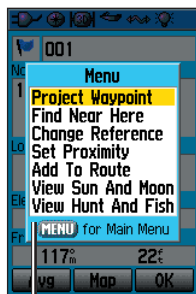


Selecting Options and Entering Data

Use the **Rocker** key to highlight an item in a list or a field on the screen. Use the **ENTER** key and the **Rocker** key to select options, enter names and numbers in data fields, and activate your selections.

To select and activate an option:

1. With any page displayed, press **MENU**. A menu appears with a list of optional features for that page.
2. Use the **Rocker** key to move the highlight Up, Down, Right, or Left on the menu to your desired selection.
3. Press **ENTER** to activate the feature. Another window may then appear with more options. If so, select the desired option and press **ENTER** again.



A menu

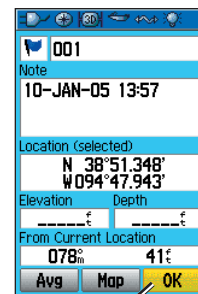
To exit a menu or cancel an action:

Press **QUIT**. The **QUIT** key moves backwards through your steps. Press **QUIT** repeatedly to return to the starting page.

To select and activate an on-screen button:

1. Use the **Rocker** key to highlight the desired on-screen button.
2. Press **ENTER**.

To practice entering data, try marking a waypoint and customizing one of the waypoint properties, such as the waypoint name.



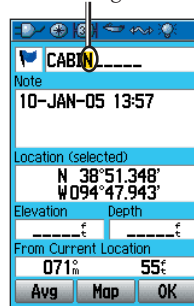
On-Screen Button

To mark your current location as a waypoint, press and hold the **ENTER/MARK** key until the Mark Waypoint page appears.



To enter data in a data field:

1. Use the **Rocker** key to highlight the desired field and press **ENTER**.
2. Press Up or Down on the **Rocker** key to select characters. Press Right to move to the next character or press Left to move back to the previous character. If there are two lines of data, keep pressing Right to drop to the next line.
3. After entering the desired data, press **ENTER**.

Entering data

TIP: To clear the entire data field, highlight the left-most character field and press Left once more on the **Rocker** key.

Not all fields are programmable. When you are on a page with fields that are not selectable, the highlight skips over them.

Using the Databases

Optional Garmin MapSource® CD-ROMs enhance the versatility of your 76CS Plus. With optional MapSource City Select® data, you can view listings of nearby restaurants, lodging, shopping centers, attractions and entertainment, and even retrieve addresses and phone numbers for any listed location.

The included USB Interface Cable or an optional PC Interface Cable (with a serial connector) is used to transfer MapSource CD-ROM data to the unit.

Note that you must install the included MapSource Trip and Waypoint Manager software before you can connect your USB cable to your computer.

For a list of compatible MapSource products, refer to <http://www.garmin.com/cartography/>.



Simulated Basic Navigation

To learn how to use the 76CS Plus, use it in Simulator mode. Simulator mode is also helpful for practicing with the unit indoors or when no satellite signals are available. All waypoints and routes created in Simulator mode are retained in memory for future use.

Activating Simulator Mode

You can activate Simulator mode from the Satellite page. If you turn the unit off while in Simulator mode and then turn it on again, the unit will be in normal navigation mode (not in Simulator mode).

To activate Simulator mode:

1. Press the **PAGE** or **QUIT** key to open the Satellite page.
2. Press the **MENU** key, highlight **Start Simulator**, and press **ENTER**.



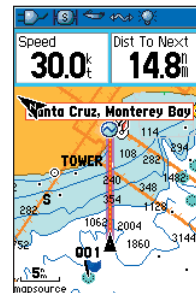
NOTE: Do not attempt to navigate in Simulator mode. When Simulator mode is activated, the GPS receiver is turned off. All indicators of satellite signals are only simulations and do not represent the strength of actual satellite signals.

Simulating Navigation

For this simulation we have set our location to the Santa Cruz coast.

To find and go to a marine destination:

1. Activate Simulator mode.
2. Press the **NAV** key.
3. Highlight **Go To Point** and press **ENTER** to open the Find Menu.
4. Use the **Rocker** key to select **Marine Points** and press **ENTER**.
5. Select a Marine Point category, such as **Tide Stations**, and press **ENTER**.
6. Use the **Rocker** key to highlight the point you want to navigate to and press **ENTER**. For our example, we selected Monterey Tide Station.
7. On the information page, highlight the **Go To** button and press **ENTER**.



Simulated navigation on the Map page.

**To simulate navigation to the destination:**

1. Follow the previous steps to initiate navigation. The 76CS Plus switches to the Map page. A magenta line shows the direct route from your current location to your destination. If desired, press **IN** or **OUT** to adjust the zoom level.
2. Press **PAGE** to display the Compass page.
3. Press Up on the **Rocker** key to simulate and increase in speed. Press the **Rocker** key Right or Left to simulate steering.
4. Press **QUIT** to return to the Map page. Press **IN** to adjust the zoom level. Observe the movement of the position marker (triangle) as the unit simulates navigation.
5. If desired, press **PAGE** or **QUIT** to view the simulated navigation on the other main pages.

Now we will simulate navigation in Automotive mode. To switch to Automotive mode, press and hold the **PAGE/MODE** key. Use the **Rocker** key to select **Automotive** and press **ENTER**.

To find and go to a land destination:

1. Activate Simulator mode.
2. Press the **NAV** key.

76CS Plus Owner's Manual

3. Highlight **Go To Point** and press **ENTER**.
4. Highlight **Cities** and press **ENTER**. Use the **Rocker** key to select a city and press **ENTER**.
5. Highlight **Go To** and press **ENTER**.
6. Highlight **Faster Time** or **Shorter Distance** and press **ENTER**.
7. At the "Do you want to simulate driving this route?" window, select **Yes** and press **ENTER**.

The Map page displays a magenta turn-by-turn route from your current location to your destination.

8. Watch the movement of the position marker (triangle) as the unit simulates navigation. If desired, press **IN** or **OUT** to zoom.
9. Press **PAGE** to view other pages.



Simulated Automotive navigation displayed on the Map page.

When you are ready to navigate on your own, turn the Simulator off.





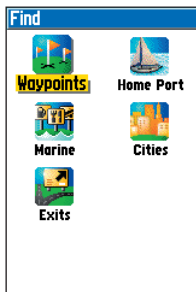
BASIC OPERATION

This section describes basic operation of the 76CS Plus in any of the usage modes. Once you learn how to perform basic tasks, such as finding an item, you can then use the unit in any mode.

Finding an Item



Use the Find Menu to search for locations in several default categories: Waypoints, Cities, Exits, and Marine Tide Stations. Additional categories are displayed if optional BlueChart® or MapSource data is installed.



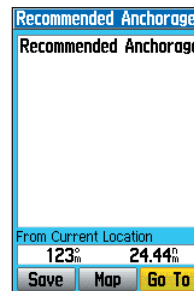
Find Menu
Shown without additional BlueChart or MapSource maps installed

To open the Find Menu use one of the following methods:

- Press the **NAV** key, highlight **Go To Point**, and press **ENTER**.
- Press **MENU** twice to open the Main Menu. Highlight **Find** and press **ENTER**.

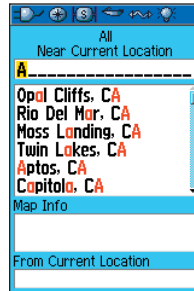
Tips about Finding Items

- By default, the search results list contains only those items near your current location or the map arrow (if active).
- Use the Recent Finds category, which contains a list of the 50 last found items, to easily and quickly open items you have recently found.
- Once you have found the item you are looking for, highlight the item in the results list and press **ENTER** to open the item's information page. You can view the item on the map, go to the item, or save the item as a waypoint.



**To search for an item and route to it:**

- Use one of the following methods to open the Find Menu:
 - Press **NAV**, highlight **Go To Point**, and press **ENTER**.
 - Press **MENU** twice, highlight **Find**, and press **ENTER**.
- Highlight the category you want to search, such as **Cities**, and press **ENTER**.
- Press **ENTER** and use the **Rocker** key to enter the letters contained in the item name. The list begins to sort by the items that contain the letters you are entering. Press **ENTER** when finished.
- Highlight the desired item from the list and press **ENTER**.
- Highlight the **Go To** button and press **ENTER**.



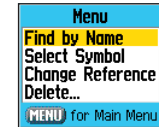
NOTE: The search result list may contain multiple examples of a navigation aid. Select any instance of the navigation aid, and the GPS will use the most accurately located navigation aid.

Searching for a Location by Name

If you know the name of the location you want to find, the Find By Name search option may be the easiest method of searching.

To find a location using Find By Name:

- Access the Find Menu.
- Highlight the category you want to search, such as **Cities**, and press **ENTER**.
- Press **MENU**, highlight **Find By Name**, and press **ENTER**.
- Use the **Rocker** key to enter the name of the location.
- When the list displays a match, highlight the item and press **ENTER**.
- An information page opens. To go to the item, highlight the **Go To** button and press **ENTER**.





Finding an Item from Another Location

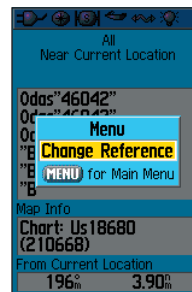
You can find an item near a location other than your present location. This can be very helpful when you are planning a long trip.

You can find an item from another item using several different methods:

- Highlight a point on the Map and press the **NAV** key. The Find Menu opens with the results centered around the location you selected.
- Open the Find Menu and press **MENU**. Highlight **Change Reference** and press **ENTER** to select a new reference point on the map.
- Search for an item using the Find Menu or the Map page. With the item's information page open, press **MENU**, highlight **Find Near Here**, and press **ENTER**.

To change the search reference point:

1. Open the Find Menu.
2. Use the **Rocker** key to select the category you want to search and press **ENTER**.
3. Press **MENU**, highlight **Change Reference**, and press **ENTER**.



4. Use the **Rocker** key to move the arrow to the location you want to search around and press **ENTER**. The list displays items nearest to the new map position.

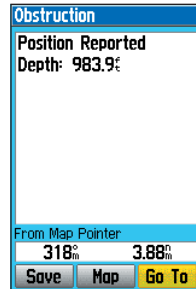


Viewing the Information Page

Each item on the map and each item listed in the Find Menu results list has an information page.

To view details about an item:

1. Highlight the desired point on the map or in the search results list and press **ENTER**. An information page appears with details about the item.
2. Press **PAGE** or **QUIT** to exit the information page. You can also highlight one of the on-screen buttons and press **ENTER** to perform that operation.



Information Page

Information Page Options

Each information and Waypoint page has several options provided in the menu. Press **MENU** to open the options menu. For more information about the options, refer page 27.

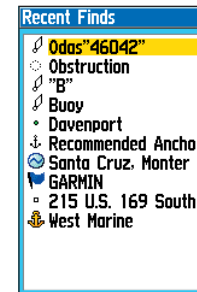
Searching for a Recently Found Item



Recent Finds is a list all of the items you have recently found. The most recent location found is at the top of the list. When you exceed the number of entries the list can hold, the oldest is deleted.

To return to a recently found item:

1. From the Find Menu, highlight **Recent Finds** and press **ENTER**.
2. Use the **Rocker** key to select the item you want view and press **ENTER** to display the information page for that item.
3. Press **ENTER** to select the **Go To** button and create a route to the point.



*Recent Finds list.
To go to an item,
highlight the item
and press **ENTER**
two times.*





Searching for a Waypoint or City



The Waypoints category lists all of the waypoints you have created and saved. For complete information about creating and editing waypoints, see the “Creating and Using Waypoints” section beginning on page 24.



The Cities category allows you to search for any city listed in the database (either in the basemap or installed detailed map data).

To find a waypoint or city:

1. Open the Find Menu.
2. Highlight the **Waypoint** or **Cities** icon and press **ENTER** to display the results list.
3. Use the **Rocker** key to scroll up and down the list to find a point/city. Press the **MENU** key to display a list of search options.
 - **Find By Name** allows you to enter the name of the waypoint in a search field.
 - **Find Nearest** allows you to search for points/cities near your current location.

- **Select Symbol** allows you to search for waypoints of a specific type.
 - **Change Reference** allows you to use the Panning Arrow to select a point on the map other than your current location.
4. Once you have found the item you are looking for, press **ENTER** to view the information page. You can edit the data or select **Go To** and press **ENTER** to navigate to the point/city.



*Highlight the desired waypoint and press **ENTER** to view the information page.*

Waypoints Results List



Searching for a Marine Point

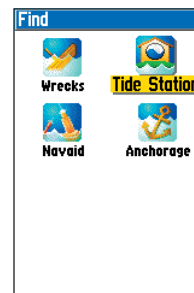


The Marine Points category allows you to search for the marine Tide Prediction Stations provided in the 76CS Plus marine basemap. When detailed marine map data has been loaded, you can also view marine items such as nav aids, wrecks and obstructions, and anchorages.

To find a marine point:

1. Open the Find Menu.
2. Highlight the **Marine Points** icon, then press **ENTER** to display the sub-categories for marine items. The sub-categories that appear depend on the detailed maps you have loaded.
3. Use the **Rocker** key to highlight the desired sub-category, such as **Tide Station**, then press **ENTER**.
4. Press the **MENU** key and then **ENTER** to search from a different location. On the map, select the location you want to search from and press **ENTER**.

5. To enter letters contained in the name, highlight the top field and press **ENTER**. Use the **Rocker** key to begin entering letters.
6. When the desired point is displayed in the results list, press **ENTER**, then use the **Rocker** key to highlight the desired point.
7. Press **ENTER** to view the information page. You can save the item as a waypoint, view the item on the map, or select **Go To** and press **ENTER** to navigate to the point.



Marine Points Sub-Category Menu

Shown with additional BlueChart data installed.



Searching for an Interstate Exit



The Exits category allows you to search for the nearest Interstate Exits.

To find an exit:

1. Open the Find Menu.
2. Highlight **Exits** and press **ENTER**. A list of exits near your current location displays. Scroll through the list to highlight the desired exit.
3. Press **ENTER** to display the information page for that exit. If the exit has services, the information page contains a list of available services near that exit.
4. You can save the exit as a waypoint, view it on a map, or go to the exit. Press **QUIT** or **PAGE** to exit the information page and Find Menu.

To view the services at an exit:

1. Use the directions above to find the desired exit and open the exit information page.
2. Use the **Rocker** key to highlight a selection from the Services list.
3. Press **ENTER** to display the information page for the selected service.

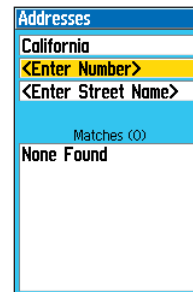
Searching for an Address or Intersection



If you have loaded MapSource detailed map data into your 76CS Plus, you can search for addresses and intersections using the **Addresses** and **Crossroads** categories.

To find an address or intersection:

1. Open the Find Menu.
2. Highlight **Addresses** or **Crossroads** and press **ENTER**.
3. If your unit has a GPS fix, the Region field at the top of the page will be completed with your current region. Highlight **<Enter Number>** or **<Enter Street 1>** and press **ENTER**.
4. Use the **Rocker** key to enter the number and press **ENTER** or enter the first street name. When the name of the street appears in the list, press **ENTER**, highlight the street, and press **ENTER** again.





- Highlight the next field and enter the street name, or the second street if you are searching for a crossroad. When the desired address or street is displayed, press **ENTER**, highlight the item, and press **ENTER** again.
- When done, a list of matches appears below. Select the item you are searching for and press **ENTER** to display the information page.

Press **MENU** to clear all of the information entered, to clear the region selection, or to enable the **City Filter**. After you enable the City Filter, enter a City in the city field to reduce the possible number of matches.

Searching for a Point of Interest



If you have loaded MapSource map data into your 76CS Plus, you can search for Points of Interest, such as restaurants and lodging.

To find a point of interest:

- Open the Find Menu.
- Highlight a desired Points of Interest category, such as **Food & Drink**, and press **ENTER**.

- To narrow your search, press the **MENU** key, highlight **Select Category**, and press **ENTER**. Highlight the category you want to search, such as **Barbecue**, and press **ENTER**.
- Highlight the data entry field and press **ENTER** to begin entering the name of the location you are searching for.
- When that item appears in the results list, highlight it and press **ENTER** to view the information page for the item.



If you are searching for a restaurant that is part of a national chain, only the nearest restaurant to your location is displayed when you search using the Find Nearest method. If you search By Name, then all of the locations for that chain in the map database will be displayed with the one closest to your current location listed first.





Creating and Using Waypoints

Waypoints are locations or landmarks you record and store in your GPS. They are locations you may want to return to later, such as checkpoints on a route or other features. You can save several waypoints together to create a route.

Save your current location as a waypoint by pressing and holding **ENTER/MARK**. The 76CS Plus stores up to 1000 alphanumeric waypoints with a user-defined icon, note, elevation, and depth available for each waypoint. Waypoints can be created using three basic methods:

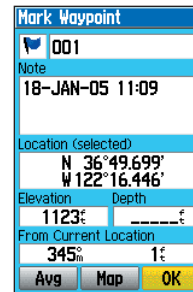
- **ENTER/MARK**—quickly mark your present position.
- **Graphically**—define a new waypoint position from the Map page.
- **Text Entry**—enter a new waypoint’s position coordinates manually.
- **Save**—save a Find Menu item as a waypoint.

Marking Your Present Position

The **ENTER/MARK** key lets you quickly capture your present position to create a new waypoint. You must have a valid position (2D or 3D) fix to mark your present position. You can determine the satellite fix by looking at the Satellite page.

To mark your present position:

1. Press and hold the **ENTER/MARK** key until the Mark Waypoint page appears. A default three-digit name and symbol are assigned for the new waypoint.
2. To accept the waypoint with the default information, press **ENTER**.
3. To change any information, highlight the appropriate field and press **ENTER**. After entering and confirming your changes, highlight **OK** and press **ENTER**.



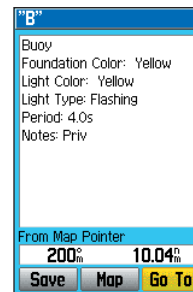


Creating a Waypoint Using the Map

You can quickly create a waypoint using the Map page. When you pan the map and move the arrow over a map item (see page 50), a highlighted description of that item appears. The 76CS Plus uses the item text shown as the default name for the new waypoint.

To create a new waypoint using the map:

1. Press **PAGE** or **QUIT** until the Map page is displayed.
2. Use the **Rocker** key to move the arrow to the desired map position or map feature.
3. Press and quickly release **ENTER/MARK** to capture the arrow position. Pressing and holding **ENTER/MARK** marks your present position, not the arrow's location.
4. If the location you selected has more than one point at it, a Select Point window appears listing different points and charts. Select the desired point from the list and press **ENTER**.
5. If you selected a map feature, an information page appears. Use the **Rocker** key to highlight **Save** and press **ENTER**.



Map Feature Information Page

Select **Save** to save the feature as a waypoint.

6. The Waypoint page appears. To accept the waypoint with the default information, highlight **OK** and press **ENTER**.
7. To change the information on the Waypoint page, highlight the appropriate field and press **ENTER**. After making changes, highlight **OK** and press **ENTER**.





Entering Coordinates of a Location

You can manually enter location coordinates to create a waypoint. This method can be useful for creating a waypoint at a specific latitude/longitude position from a chart. You can manually change the location coordinates in the Mark Waypoint page to create a new waypoint.

To create a new waypoint by entering location coordinates:

1. Press and hold the **ENTER/MARK** key to create a waypoint (or use your favorite method discussed in previous sections). The new waypoint is created with the next available waypoint number and the receiver's last known position as the default position.
2. On the Mark Waypoint page, use the **Rocker** key to highlight the **Location** field and press **ENTER**. Use the **Rocker** key to enter the desired position coordinates and press **ENTER** when finished.

3. To change any of the other information on the Mark Waypoint page, highlight the appropriate field and press **ENTER**. After making changes, highlight **OK** and press **ENTER**.

Mark Waypoint	
001	
Note	18-JAN-05 11:04
Location (selected)	
N 36°49.699'	
W 122°16.446'	
Elevation	Depth
1123'	-----'
From Current Location	
345m	1'
Avg	Map OK

*To change the location of a waypoint, highlight the character you want to change in the **Location** field. Press Up or Down on the **Rocker** key to change the character. Repeat until the new location is entered.*

Saving a Find Menu Item

After you have found a item using the Find Menu, you can select **Save** and press **ENTER** to save that item in your Waypoints list.



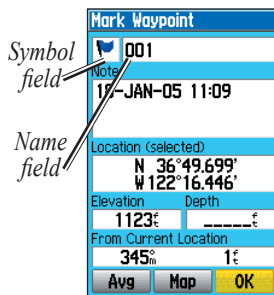


Editing a Waypoint

Once you have created and stored a waypoint, you can modify, review, rename, move, or delete it at any time through the Waypoint pages.

To edit the waypoint:

1. Use the **Rocker** key to highlight the desired waypoint on the Map page. You can also press **FIND**, select **Waypoints**, and highlight the waypoint you want to review.
2. Press **ENTER** to display the Waypoint page.
3. Highlight the waypoint name, symbol, or another field you want to change and press **ENTER**.
4. Use the **Rocker** key to select the desired symbol or to enter data and press **ENTER** when done.



Waypoint Page

Waypoint Information Page Options

Each waypoint, map item, and Find Menu item has an information page, which has an options menu. Press **MENU** to open the options menu. Some of the features in the menu are listed below:

Find Near Here—opens the Find Menu so you can search for map items near the item.

Change Reference—opens the map so you can select a new location using the arrow. Refer to page 18.

Set Proximity—sets a proximity alarm for the point. Refer to the “Proximity Points” section on page 30.

Add To Route—includes this item on a New Route or adds it to an existing route. See page 33 for details.

View Sun and Moon—opens the Sun and Moon page. Refer to page 59.

View Hunt and Fish—opens the hunting and fishing information page. Refer to page 69.

Chart/Map Information—displays the map that the map item originated from. Select **List** to display the list of charts/maps. See page 75.





Averaging the Waypoint's Location

Averaging a waypoint's location makes the unit take several sample location measurements for a waypoint to calculate a more accurate position reading.

To calculate the average location:

1. Highlight the waypoint on the map or in the Find Menu and press **ENTER**. Press **MENU** when the item's information page is open.
2. Highlight **Average Location** and press **ENTER**.
3. The Average Location window appears. Watch the fields change as the unit calculates the average position of the waypoint. Press **ENTER** to save the updated position.

Average Location	
Location	
N	38°51.354'
W	094°47.948'
Estimated Accuracy	
	32.0'
Elevation	
	1142'
Measurement Count	
	24
Save	

Average Location



NOTE: You must have a GPS satellite fix before you can average a waypoint's location.

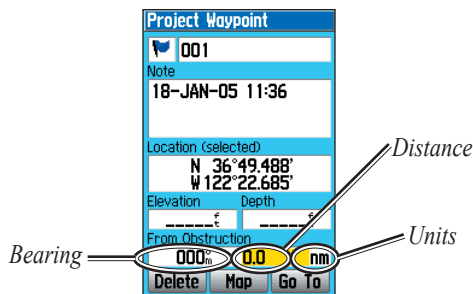
Projecting a Waypoint

You can create a new waypoint by “projecting” the distance and bearing from a specific location.

To project a new waypoint's location:

1. Open the item's information page (by marking a waypoint, opening the Find Menu, or a map item). You should open the item from which you will project the new waypoint
2. Press **MENU**, highlight **Project Waypoint**, and press **ENTER** to open the Project Waypoint page.
3. To enter the bearing that the new waypoint will be projected from the original waypoint, highlight the **Bearing** field and press **ENTER**. Use the **Rocker** key to enter the bearing and press **ENTER**.
4. Highlight the **Distance** field and press **ENTER**. Enter the distance between the original waypoint and the projected waypoint, and press **ENTER**.





Project Waypoint Page

Enter the distance, bearing, and units to project the new waypoint.

- To change the units of measure, highlight **nm** and press **ENTER**. Highlight the desired units in the list and press **ENTER**.
- Make any other desired changes to the new waypoint data (such as the name or symbol), then press **QUIT** or **PAGE** to exit the information page.

Deleting Waypoints

You can delete individual waypoints or all waypoints that have a particular symbol.



NOTE: Once a waypoint is deleted, it cannot be recovered from the unit. Back up important waypoints to a computer using the optional PC cable and interface software, such as MapSource, or write them down by hand.

To delete a waypoint:

- Open the waypoint's information page.
- Highlight **Delete** and press **ENTER**.

To delete waypoints by symbol:

- Open the Waypoints find category and press **MENU**.
- Highlight **Delete...** and press **ENTER**.
- Highlight the symbol of the waypoint you want to delete and press **ENTER**.
- Highlight **Yes** and press **ENTER** to confirm. Choose **No** or press **QUIT** to exit without deleting.





Proximity Points



You can define an alarm circle around a stored waypoint position. The alarm circle can help you avoid reefs, rocks, or restricted waters.

If a proximity alarm circle overlaps an existing alarm circle, a “Proximity Overlaps Another Proximity Waypoint” message appears. If you enter an alarm circle overlap, you are only alerted to the closest proximity waypoint; use caution when navigating these areas.

To add a proximity waypoint:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Proximity** and press **ENTER**.
3. Use the **Rocker** key to highlight an empty line on the list and press **ENTER**.
4. Select the desired point from the Find Menu. Highlight **Use** and press **ENTER**.

Proximity Waypoints	
Name	Radius
Exposed Rock	1.00 ^m
Dangerous Und	1.00 ^m
	----- ^m
<input checked="" type="checkbox"/> Proximity Alarms	

Adding proximity alarms.

5. The distance field is now highlighted. Press **ENTER** to begin entering the proximity radius.
6. Use the **Rocker** key to enter a distance value (up to 99.99 units) and press **ENTER**.

To turn proximity alarms on or off:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Proximity** and press **ENTER**.
3. Use the **Rocker** key to highlight the box next to **Proximity Alarms** at the bottom of the page and press **ENTER**.

To clear one proximity alarm from the list:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Proximity** and press **ENTER**.
3. Use the **Rocker** key to highlight the proximity alarm you want to clear and press **ENTER**.
4. Highlight **Remove** and press **ENTER**.
5. Confirm the deletion by selecting **Yes** and then pressing **ENTER**.

To clear all alarms from the list, press **MENU** and then **ENTER**.





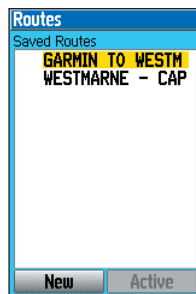
Creating and Using Routes




The Routes page of the Main Menu allows you to create routes to destinations. Each route contains a start point and an end point (the destination). You can also add intermediate points along the route. You can create and store up to 50 reversible routes, with up to 250 points each.

You can create and modify a route from the Routes page and add points to the route from the Find Menu. More complex routes can be created using a PC and the MapSource detailed map program and then transferred to the unit memory.

Once you start navigating a route, it is saved to the 76CS Plus unit's memory. The Routes page displays all of the saved routes in the 76CS Plus memory.



Routes Page

If a small automobile icon  appears in front of a saved route, it is a turn-by-turn route created in Automotive mode. For more information about turn-by-turn routes in Automotive mode, refer to page 46.

Creating a Route

Routes can be created a few different ways:

- Using the Routes page and the Find Menu.
- Using the Routes page and the Map page.
- Using the menu of an item's information page.

After you have created a route, press the NAV key to begin navigating a saved route quickly.

To navigate a saved route:

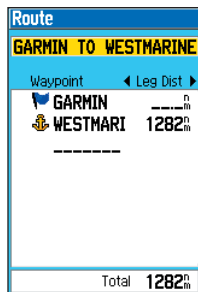
1. Press the NAV key.
2. Use the Rocker key to highlight **Navigate Route** and press **ENTER**.
3. Highlight the desired route and press **ENTER**.





To create a route using the Find Menu:

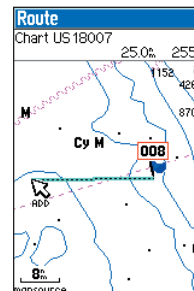
1. Press **MENU** twice to display the Main Menu.
2. Use the **Rocker** key to highlight **Routes** and press **ENTER** to open the Routes page.
3. Press **MENU**, highlight **New Route**, and press **ENTER**. Or, highlight the **New** button and press **ENTER**.
4. The Route Review page automatically opens, displaying a blank route. Press **ENTER** to find items to add to the route.
5. The Find Menu opens. Select a point to add to your route. When you find an item, highlight **Use** and press **ENTER** to add the point to the route. Repeat until you have added all of the points to the route.
6. Press **QUIT** to close the Route Review page.



Route Review Page

To create a route using the map:

1. Press **MENU** twice to display the Main Menu. Highlight **Routes** and press **ENTER**.
2. Highlight **New** and press **ENTER**.
3. Highlight the first blank slot in the Route page and press **MENU**. Highlight **Edit on Map** and press **ENTER**.
4. Use the **Rocker** key to highlight the location on the map you want to add and press **ENTER**.
5. If you selected a location that is not a feature or waypoint, a new waypoint is created. Press **ENTER** on the New Waypoint page to save the location as a waypoint. You must then highlight the waypoint on the map and press **ENTER** to add it to the route.
6. Repeat until you have added all points to the route. Press **QUIT** to return to the Route Review page.

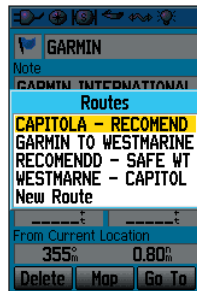


Creating a new route on the map



To create a route using the information page options menu:

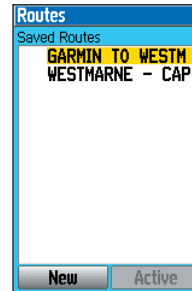
1. Highlight the waypoint or map feature on the map and press **ENTER**. Press **MENU** when the item's information page is open.
2. Highlight **Add To Route** and press **ENTER**. The Select Route window appears.



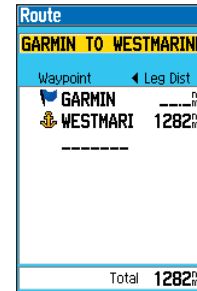
3. Highlight the desired route or select **New Route**, and then press **ENTER**.
4. Press **QUIT** or **PAGE** to close the information page.

Viewing Your Saved Routes

The Routes page lists all the routes currently stored in memory (Saved Routes). To view a specific route, highlight the desired route on the Saved Routes list and press **ENTER**. This opens the Route Review page.



Routes Page



Route Review Page

The Routes page menu allows you to activate, copy, or delete the highlighted route. With the Routes page open, press **MENU** to view the Routes menu. You can also create a new route, delete all routes, and set up the routes to manually transition to the next waypoint.

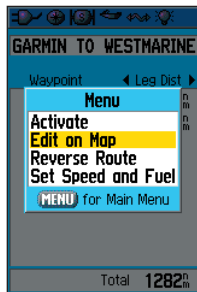




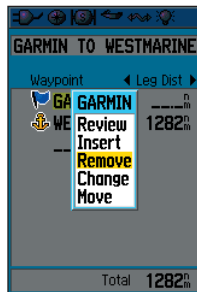
BASIC OPERATION > CREATING AND USING ROUTES

To review a specific route, highlight the desired route on the Saved Routes list and press **ENTER**. This opens the Route Review page that lists each point in the route and displays data about each leg of the route.

To open the Route Review page options menu, press **MENU**. To edit a point in the route, highlight the point and press **ENTER**.



Route Review Page
Options Menu



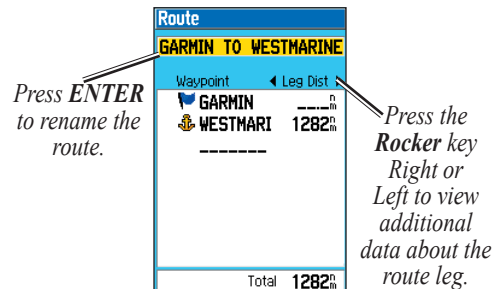
Route Point
Menu

Editing a Route

You can edit a route using the Route Review options menu and the route point menu.

To change the name of the route:

1. Press **MENU** twice to open the Main Menu. Highlight **Routes** and press **ENTER**.
2. Use the **Rocker** key to highlight the name of the desired route and press **ENTER**. The Route Review page opens.
3. Highlight the route name and press **ENTER**.
4. Use the **Rocker** key to enter the desired route name. Then press **ENTER**.



Route Review Page





Editing the Route Points

You can edit each point in your route using the route point menu. From the Route Review page, highlight the point in the route you want to edit and press **ENTER**. The route point menu, shown below, opens.

Review—opens the item's information page. Press **QUIT** to return to the Route Review page.

Insert—opens the Find Menu so you can select a new point to insert into the route. The new point is added before the selected point in the route.

Remove—removes the highlighted point from the route.

Change—opens the Find Menu so you can replace the selected point with a different point.

Move—allows you to change the point's position in the route. Press the **Rocker** key Up or Down to move the point.

You can also edit a route on the Map page.

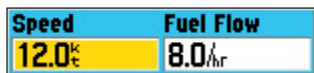
To edit the route on the map:

1. Press **MENU** twice to open the Main Menu. Use the **Rocker** key to select the **Routes** and press **ENTER**.
2. Select the desired route and press **ENTER**. Press **MENU** to open the Route Review page menu.
3. Highlight **Edit on Map** and press **ENTER**.
4. Highlight the route and press **ENTER**.
5. Drag the route to the new location and press **ENTER**.
6. If you select a location that is not a feature or waypoint, a new waypoint is created. Press **ENTER** on the New Waypoint page to save the location as a waypoint. You must then highlight the waypoint on the map and press **ENTER** to add it to the route.
7. Repeat steps 4 through 6 until all desired points are added to the route. Press **Quit** when finished.



To set speed and fuel flow (plan your route):

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Routes** and press **ENTER** to open the list of saved routes.
3. Highlight the desired route and press **ENTER** to open the Route Review page.
4. Press **MENU**. Highlight **Set Speed and Fuel** and press **ENTER**. The following window appears:



5. Enter the data for Speed and Fuel Flow.
6. Press **QUIT** when you are done.



NOTE: Fuel flow rates are measured in “units per hour.” System setting changes for units of measure (statute, nautical, or metric) do not affect the fuel flow measure. You should enter fuel flow rates based upon information for your vessel (such as the operator’s manual or performance specifications) and make note of the desired units of measure (gallons or liters).

To set up route leg transition:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Routes** and press **ENTER**.
3. Press **MENU**, highlight **Set Up Routes**, and press **ENTER**.
4. Highlight the top field and press **ENTER**. Select **Manual** or **Distance** and press **ENTER**.
5. If you select **Distance**, highlight the **Radius** field and press **ENTER**. Use the **Rocker** key to enter the distance. When you are within the entered distance, the 76CS Plus will direct you to the next point on your route.
6. If you select **Manual**, use the **IN** and **OUT** keys to transition to the next waypoint while navigating a route.

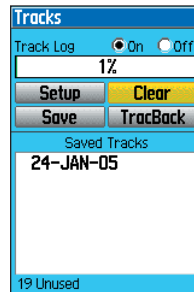
Managing Your Tracks



The 76CS Plus draws an electronic breadcrumb trail or “track log” on the Map page as you travel. The 76CS Plus records the track log, which contains points along its path, including time and position for each point.

The track log starts recording as soon as the 76CS Plus gets a location fix. For the best results, clear the track log before you start traveling; when the track log is full, new track points overwrite the oldest track points (if **Wrap When Full** is enabled). The percentage of memory used by the current track log appears at the top of the Tracks page. To avoid losing track points, save the track log before it reaches 100%.

You must first save the track log before you can use the **Navigate Track** and **TracBack** features. You can store up to 15 track logs.



Setting up Your Track Log

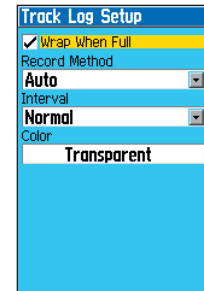
Before you begin traveling, you might want to change the way the 76CS Plus records your breadcrumb trail.

To set up your track log:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Tracks** and press **ENTER**.
3. Highlight the **Setup** button and press **ENTER**.
4. Make changes as necessary to the Track Log Setup page.
5. Press **QUIT** when you are finished.

Wrap When Full—place a check mark in the box to allow the 76CS Plus to overwrite the oldest track points with new track points.

Record Method—**Distance** records track points after a specified distance has been traveled. **Time** creates track points after a specified time has elapsed. **Auto** records points based on frequency and is the best method to use in most situations.





Interval—enter a distance, time, or frequency.

Color—select a color for the track when it is displayed on the map.

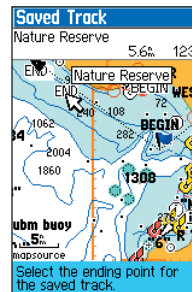
To clear the track log:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Tracks** and press **ENTER**.
3. Highlight the **Clear** button and press **ENTER**.
4. Highlight **OK** and press **ENTER**. Press **QUIT** to exit.

To save the track log:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Tracks** and press **ENTER**.
3. Highlight the **Save** button and press **ENTER**.
4. A window pops up asking if you want to save the entire track log. To save the entire track, highlight **Yes** and press **ENTER**.

To save only a portion of the track, highlight **No** and press **ENTER**. On the map, select a beginning point and press **ENTER**. Then, select an ending point and press **ENTER**.



Saving part of the Track Log.

5. The Saved Track page automatically opens. Highlight **OK** and press **ENTER** to save the track. Press **QUIT** to exit.

Editing Your Saved Track Details

You can change the name, the color, and show the saved track on the map.

To edit a track:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Tracks** and press **ENTER**.
3. Highlight the track you want to view from the Saved Tracks list and press **ENTER**. The Saved Track page opens.
4. Highlight the **Name** field and press **ENTER**. Use the Rocker key to change the name and press **ENTER**.
5. Select a different display color when the track is displayed on the map.
6. Highlight **OK** and press **ENTER** to save the track. Press **QUIT** to exit.

Saved Track	
Name	24-JAN-05 02
Distance	25.73%
Area	0.2 nm ²
Color	Dk Red
<input type="checkbox"/> Show On Map	
Delete	Map
TracBack	OK

Press **MENU** on the Saved Track page to view the elevation profile of the track.

Calculating the Area

From the Saved Track page, you can calculate the area of a space as you travel around it.

To calculate the area of a space:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Tracks** and press **ENTER**.
3. Press **MENU**, highlight **Area Calculation**, and press **ENTER**.
4. Highlight **Start** and press **ENTER** to start the calculation. Then, begin to move and define the area's boundaries.
5. When you have finished defining the area, highlight **Stop** and press **ENTER**.
6. Press **ENTER** again to save the new track to the Saved Tracks List.



Navigating a Saved Track

You can save your track log to use later as a TracBack, which reduces your track log into a route with up to 300 turns. Once activated, a TracBack route leads you back to the oldest stored track log point. It is a good idea to clear the existing track log before you start your current trip. Also, you must save an active track log before you can navigate it as a TracBack.

To activate a TracBack:

1. Press **NAV**, highlight **Navigate Track**, and press **ENTER**.
2. On the Tracks page, highlight the track you want to navigate and press **ENTER**.
3. Select the **TracBack** button on the Tracks or Saved Tracks page and press **ENTER**.
4. Use the **Rocker** key to select the point you want to navigate to (TracBack to) and press **ENTER**.

TracBack Tips

Once you activate a TracBack, the 76CS Plus divides the track into segments called legs. Up to 300 temporary turns are created to mark the most significant features of the track in order to duplicate your exact path as closely as possible. To get the most out of the TracBack feature, remember these tips:

- Always clear the track log at the point that you want to go back to (such as a dock or campsite).
- The Track Log must be set to **On**.
- If the track log **Record Method** is set to **Time**, the route may not navigate your exact path (set to **Auto** for best performance).
- If the receiver is turned off or satellite coverage is lost during your trip, TracBack draws a straight line between any point where coverage was lost and where it resumed.
- If the changes in distance and direction of your track are too complex, 300 waypoints may not mark your path accurately. The receiver then uses the most significant points of your track so there will be fewer changes in direction.



NAVIGATING IN THE SEA AND LAND MODES

This section explains operation in the sea modes: Powerboat and Sailboat.

To switch usage modes:

1. Press and hold the **PAGE/MODE** button.
2. Use the **Rocker** key to select the mode you want to use and press **ENTER**.

Initiating Navigation

You can begin navigating to a point using several different methods. You can use the Navigate Menu, as discussed below. You can also use the Tracks and Routes pages in the Main Menu to begin navigation.

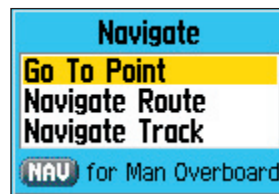
Press the **NAV** key to open the Navigate Menu:

Go To Point—allows you to select a waypoint or point of interest from the Find Menu to navigate to.

Navigate Route—allows you to select a route to navigate. You can also activate a saved route through the Routes page of the Main Menu. For information about routes, refer to the “Creating and Using Routes” section beginning on page 31.

Navigate Track (TracBack)—allows you to select a saved track to navigate. You can also activate a saved track through the Tracks page of the Main Menu. For information about tracks, refer to the “Managing Your Tracks” section beginning on page 37.

MOB (Man OverBoard)—press **NAV** again to create a Man OverBoard waypoint and navigate to that location.



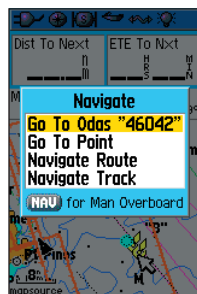
Navigate Menu

Accessed by pressing NAV/MOB key



To go to a highlighted map item:

1. Use the **Rocker** key to highlight the item you would like to navigate to on the Map page.
2. Press **NAV**. **Go To <point name>** appears in the list of options and is automatically highlighted. If you have selected an area of the map that is not a map feature, **Go To MAP Point** is listed. Select **Go To <point name>** or **Go To MAP Point** and press **ENTER**.



Navigate Menu

with Map Feature highlighted

To go to a point using the Find Menu:

1. Press **NAV** to open the Navigate Menu.
2. Highlight **Go To Point** and press **ENTER**. The Find Menu opens.



Find Menu

3. Use the **Rocker** key to highlight the category you want to search and press **ENTER**.
4. From the results list, highlight the point you want to go to and press **ENTER**.
5. Highlight **Go To** on the information page and press **ENTER** to create a route to that point.



Navigating in the Sea Modes

Once you are actively navigating, you will see a magenta line that runs from your current location to the destination on the Map page. You can use many pages in the 76CS Plus to navigate to your destination, such as the Map, Compass, and Highway pages.

Man OverBoard (MOB)

The Man OverBoard function (MOB) lets you simultaneously mark your present position and create a direct route back to that position for quick response in emergency situations.

To activate the MOB function:

1. Press and hold the **NAV/MOB** key, or press the **NAV/MOB** key twice.
2. Press **ENTER** to confirm and begin navigating to the MOB position.

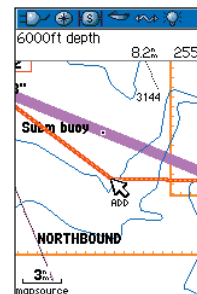
Once an MOB has been activated, an MOB waypoint with an international MOB symbol is created, and the unit begins actively navigating to that point. The MOB waypoint is stored in the waypoint list and may be deleted like any other waypoint.

Editing Your Route

You can edit your Powerboat, Sailboat, or Off Road route on the map while you are navigating.

To edit the route on the map:

1. Press **NAV** while you are navigating a route.
2. Highlight **Edit Navigation** and press **ENTER**.
3. Use the **Rocker** key to select the route and press **ENTER**.
4. Drag the route to the new location as shown to the right. Press **ENTER**.
5. If the Mark Waypoint page opens, edit the waypoint as desired, highlight **OK**, and press **ENTER**. Highlight the waypoint you just made on the map and press **ENTER** to add it to your route.
6. Repeat steps 3 through 5 until all desired points are added to the route. Press **QUIT** or **PAGE** when finished.



Editing the route on the map





Entering Your Vessel's Information



You can enter information about your vessel and set your home port using the Vessel Profile page.

To enter vessel information:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Vessel** and press **ENTER**.
3. Highlight the **New** button and press **ENTER**.
4. Use the **Rocker** key to enter your vessel's name or identifying information in the **Current Vessel** field. Press **ENTER** when finished.
5. Use the **Rocker** key to enter other information for the vessel, such as the registration number, home port (see the next page), and a symbol.

Vessel Profile

Current Vessel
UNNAMED

Registration Number

Home Port

Symbol
Powerboat

Owner

New **Edit** **Delete**

Show At Power-up

To select a saved vessel:


1. From the Vessel page, use the **Rocker** key to highlight the **Current Vessel** field and press **ENTER**.
2. Use the **Rocker** key to select the desired vessel and press **ENTER**.

To edit or delete a saved vessel:

1. From the Vessel page, use the **Rocker** key to highlight the **Current Vessel** field and press **ENTER**.
2. Highlight the vessel you want to edit or delete and press **ENTER**.
3. Use the **Rocker** key to select the **Edit** or **Delete** button and press **ENTER**. If **Edit** is selected, use the **Rocker** key and **ENTER** to edit the profile.

To change the position marker on the Map:

1. Highlight the **Symbol** field and press **ENTER**.
2. Select the desired symbol from the list and press **ENTER**.

The symbol you select is displayed on the Map page in place of the standard  position marker.





Setting Your Home Port

By setting your home port, you can easily create a route home using the **Navigate to Home Port** option in the Find Menu. Be sure to mark your home port as a waypoint before you “set” your home port. You can set a home port for each vessel profile.

To set your home port:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Vessel** and press **ENTER**.
3. Highlight the **Current Vessel** field and press **ENTER**.
4. Select the vessel for which you want to set the home port and press **ENTER**.
5. Highlight the **Home Port** field and press **ENTER**. Press **ENTER** again to open the Find Menu. Find your home port using the Find Menu. Refer to “Finding an Item” beginning on page 16 for more information.
6. Highlight your Home Port in the search result list and press **ENTER**.
7. From the information page, highlight **Use** and press **ENTER**. Your Home Port is now set.

Navigating to Your Home Port



Once you have set your home port, you can navigate to it by pressing a few buttons.

To navigate to your home port:

1. Press the **NAV** key.
2. Highlight **Go To Point** and press **ENTER** to open the Find Menu.
3. Highlight **Home Port** and press **ENTER**.

The 76CS Plus generates a route to your home port. If you do not have a home port set, the Vessel page opens for you to set your home port.



NOTE: *The Home Port feature is only available in the sea modes: Powerboat and Sailboat. The Home Port is not available in the Automotive and Off Road modes.*



Navigating in the Land Modes

After you initiate navigation, your 76CS Plus leads you to your destination using several pages.

To switch modes:

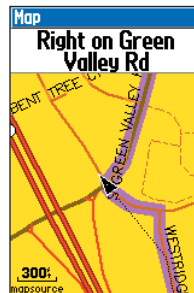
1. Press and hold the **PAGE/MODE** key.
2. Use the **Rocker** key to highlight the mode you want to use and press **ENTER**.

Following an Automotive Route

Any time you begin a route to a destination in Automotive mode, the 76CS Plus generates a turn-by-turn route so you can drive to your destination. These routes are not saved automatically; you must create the route using the Routes page in Automotive mode for the turn-by-turn route to be saved. Saved routes with more than 50 waypoints cannot be navigated in Automotive mode.

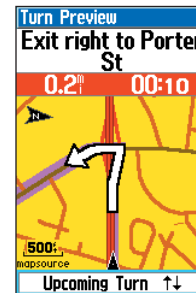
Track Your Progress with the Map page

You can track the progress of your route on the Map page. Your route is shown with a magenta line. The next turn is displayed in the top bar on the Map page.



Map Page

displaying your route



The Turn Preview page displays your next turn.

See Your Next Turn

The Next Turn page automatically opens before you need to turn. The page displays the turn on a map as well as the distance and time left before the turn.





Viewing the Active Route Page

The Active Route page lists all of the turns in your route. You can then view each turn on a map display.

To view the turns in your route:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Routes** and press **ENTER**.
3. Highlight the **Active** button and press **ENTER**.
The Active Route page opens displaying the turns in the route.
4. To view the Turn Preview page for a turn, highlight the turn in the list and press **ENTER**.
5. To view other turns, press the **Rocker** key Up or Down to scroll through the turns in order.
6. To return to the Active Route page, press **QUIT**.

Active Route	
	Right on Stockton Ave 11.4 ^m 10:46
	Keep left on Wharf Rd 11.5 ^m 11:22
	Arrive at Capitola State Beach on left 11.6 ^m 11:29

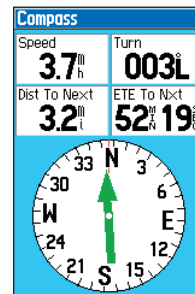
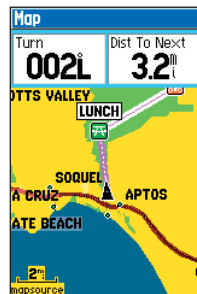
You can stop navigation, recalculate the route, and show arrival times using the options menu. Press **MENU** to open the options menu.

Following an Off Road Route

Following a route in Off Road mode is very similar to following a route in Powerboat mode. You can use the Map page and other data pages to track your progress.

See Your Route on the Map page

You can track the progress of your route on the Map page. Your route is shown with a magenta line. For more information, see the next page.



View Your Heading with the Compass Page

Use the Compass page to get to your destination. When the pointer is pointing straight up, you are heading directly to your destination. For more information, see page 52.





MAIN PAGES

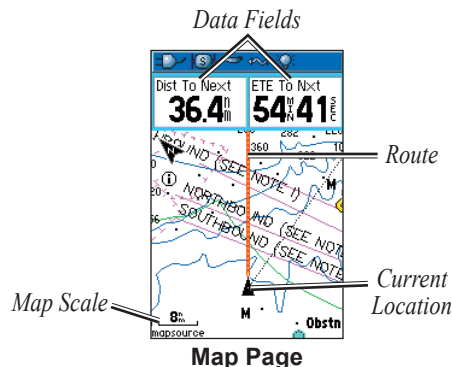
This section discusses the major pages in the page sequence. For information about changing the default page sequence, refer to page 80.

Map Page

The 76CS Plus features a real-time moving map that can do much more than just plot your course. The Map page displays map information (digital cartography) that includes nav aids, lakes, rivers, coastlines, cities, and highways. Use the dedicated zoom keys (**IN** and **OUT**) to adjust the Map page scale.

Two basic map operating modes, position mode and pan mode, determine what part of the map is shown. Position mode pans the map to keep your present position in the display area. The position marker ▲ shows your position on the Map page. The 76CS Plus always powers up in position mode, with the last known location centered on the map. When you press the **Rocker** key, the 76CS Plus enters pan mode, which moves the map to keep the white arrow ↖ (map pointer) within the display area.

Data fields appear on the top of the screen. The data fields can be configured to display different information. You can also add additional data fields to the page or select a full screen map without data fields.



Map Orientation

You can orient the Map page two ways: North Up orients the map like a paper map, while Track Up orients the map in the direction of travel. When using Track Up, the North arrow indicates the orientation of the map. Refer to page 79 to change the map orientation.





Zooming In and Out of the Map

The map display has 28 available zoom scales ranging from 20 ft to 800 nm (20 ft to 800 mi or 5 m to 1200 km). The map scale is controlled by the **IN** and **OUT** keys, with the current scale displayed at the bottom right of the data window.



NOTE: *The scale value represents the distance from one end of the scale bar (3m) to the other.*

To select a map scale (zoom in and out):

- Press the **OUT** key to zoom out.
- Press the **IN** key to zoom in.

The system has a built-in worldwide database, with more detailed coverage available through the use of optional BlueChart or MapSource data. The 76CS Plus displays cartography as long as chart information is available for the zoom scale you have selected.

Map coverage conforms to the following conditions:

- Cartography is displayed when the selected zoom scale is covered by either the internal basemap or other MapSource data loaded onto the unit.
- When the selected zoom scale is covered by both the internal database and map information, the cartography with the best resolution is displayed.
- When the selected zoom scale exceeds the resolution of the data in use, “overzoom” appears below the map scale.



2m No additional data is available
overzoom

- When external data (such as MapSource data) is used, “mapsource” appears below the scale.

2m Using detailed maps loaded in
mapsource the unit



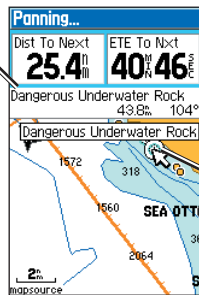
Panning the Map

The panning arrow  allows you to pan the map to view other map areas. As you pan past the edge of the current map display, the screen moves to provide continuous map coverage. The position icon  stays in your present location and may not be visible on the display screen when you pan the map.

To pan the map:

Press Up, Down, Right, or Left on the **Rocker** key. The panning arrow moves the map so you can view different parts of the map.

*Panning Arrow data window:
Shows the distance and bearing from your present location and arrow's position coordinates.*



Map feature highlighted

Panning the Map

As you move the arrow, the distance and bearing from your present position to the arrow appears in the data window, along with the arrow's position coordinates. When you zoom in pan mode, the arrow stays centered on the screen. The arrow's coordinates appear in the position field, and the distance and bearing from your present position update as you move the arrow.

To re-center the map on your current position:

When you are finished panning the Map, press **QUIT**. The map automatically moves to show your present location, and the unit returns to position mode.

Use the arrow to select on-screen map features, which allows you to review a selected item directly from the map display. If you want to view the item's information page, highlight the item on the map and press **ENTER**. The information page opens, allowing you to save the item as a waypoint, view the item on the map, and go to the item. To search for items around the item you selected, press the **NAV** key





Changing the Map Detail

You can adjust the detail of the Map page while you are in Powerboat mode or Sailboat mode.

To change the map detail shown on the Map page:

1. From the Map page, press **MENU** to open the options menu.
2. Use the **Rocker** key to highlight **Change Map Detail** and press **ENTER**.
3. Use the **Rocker** key to adjust the slider; move the slider right to increase the detail shown on the Map page, or move it left to decrease the detail.
4. Press **ENTER** or **QUIT** to close the Map Detail window.

While in any mode, you can declutter the map display. Press **MENU**, select **Declutter**, and press **ENTER**. Or simply, press **ENTER** when nothing on the map is selected. “Declutter” appears below the map scale.

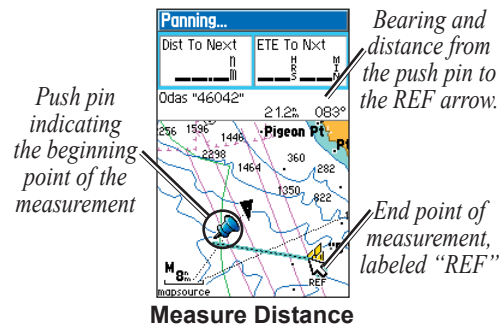
Measuring Distance

You can measure the distance and bearing between two map items.

76CS Plus Owner's Manual

To measure bearing/distance:

1. From the Map page, press **MENU** to open the options menu.
2. Highlight **Measure Distance** and press **ENTER**. An on-screen arrow appears on the map display at your present position with **REF** below it.
3. Move the arrow to the desired starting point and press **ENTER**. A push-pin marks the point.



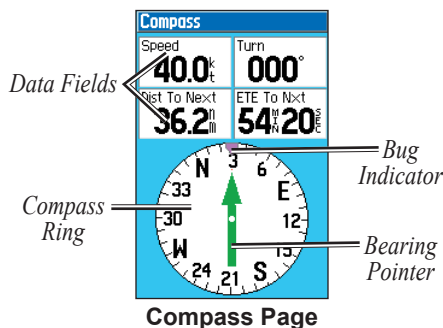
4. Move the arrow to the point you want to measure to. The bearing and distance are displayed.
5. Press **QUIT** when you are finished.





Compass Page

During active navigation, the Compass page guides you to your destination with a graphic compass display and a bearing pointer. Press **PAGE** or **QUIT** repeatedly to display the Compass page.



A rotating “compass ring” shows your course over ground (track) while you are moving. Your present course over ground is indicated at the top of the compass ring. The direction of the destination (bearing) relative to the course over ground is indicated by an arrow in the middle of the compass ring and a bearing “bug” on the outside of the compass ring.

If the arrow points up, you are going directly to the waypoint. If the arrow points any direction other than up, turn toward the arrow until it points up, then continue in that direction.

Setting up the Compass Page

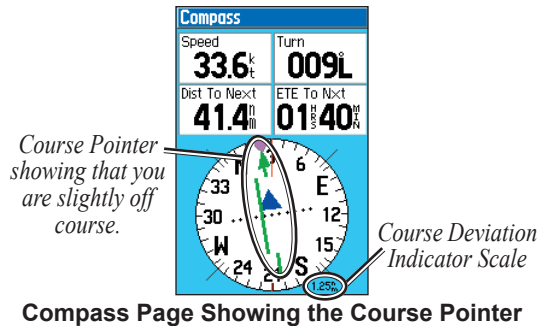
You can change the data fields and the layout of the Compass page. You can also display a Course Pointer with a course deviation indicator (CDI) scale.

To show the course pointer:

1. Open the Compass page and press **MENU**.
2. Highlight **Course Pointer** and press **ENTER**.

The Course Pointer with a Course Deviation Indicator (CDI) replaces the Bearing Pointer. If you drift away from your course (route), the pointer provides graphic indication of your drift (right or left). Move to the right or left to get back on course.





Compass Page Showing the Course Pointer

The course deviation (CDI) scale setting is adjustable for ± 0.25 , 1.25 or 5.0 (nautical mile, statute mile, or kilometer) full-scale deflection. The default setting is **1.25**, which represents the distance from the center of the CDI to full left or right limits. The course deviation scale appears on the lower right corner of the compass

To change the CDI scale:

1. With the Compass page displaying the Course Pointer, press **MENU**.
2. Highlight **Set CDI Scale** and press **ENTER**.
3. Highlight the desired scale and press **ENTER**.

Using the Electronic Compass


Your 76CS Plus uses an electronic compass that functions like a magnetic compass when you are stationary. However, when you are moving, it uses data from the GPS receiver to maintain your heading. When you stop, it again operates like a magnetic compass.

You must calibrate the compass the first time you use the unit and after you install new batteries. Refer to page 7 for information about calibration.



When the electronic compass is on, a compass icon appears in the Status Bar. When you manually turn the compass off, it stays off until you manually turn it on again. Your 76CS Plus will, however, use GPS information to track your heading if necessary. When not in use, turn the electronic compass off to conserve batteries. When the compass is off, the unit uses the GPS receiver for navigation.

To turn the compass on and off:

1. Press and hold the **QUIT** key.
2. A message appears displaying the status of the compass (on or off). An  icon appears in the Status Bar when the compass is on.

Hold the 76CS Plus level to get an accurate Electronic Compass reading. A “Hold Level” reminder displays if you are not holding the Compass correctly, or if it is not calibrated.

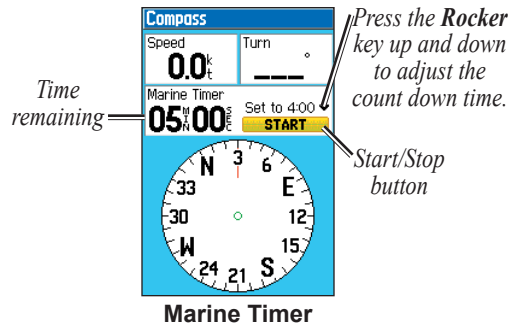
Using the Marine Timer

The Marine Timer, specifically designed for sailboat racing, allows you to easily count up or down by specified time increments. As is common in sailboat racing, there is often a 5-minute warning countdown, followed by a 4-minute preparation countdown, and finally a one-minute final countdown. Then during the race, mariners may want to count up to keep track of their time. By default, all of these different count downs and count ups can easily be performed with the 76CS Plus by pressing a few buttons.

You must change the Compass page layout to display and use the Marine Timer.

To show the marine timer:

1. Press **PAGE** or **QUIT** repeatedly to open the Compass page.
2. Press **MENU**.
3. Highlight **Set Up Page Layout** and press **ENTER**.
4. Highlight **2 Data With Timer** and press **ENTER**.



To use the marine timer:

1. Press the **Rocker** key Up or Down to select the time you want to count.
2. Press **ENTER** to start the timer.
3. Press the **Rocker** key Up or Down during the timing to quickly select a different length of time.
4. Press **ENTER** to stop timing.

As discussed previously, the timer is set to count down five minutes. If you want to change the length of time and the behavior of the timer, open the Timers page in the Main Menu.

To set the marine timer:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Timers** and press **ENTER**.
3. Highlight **Stop** under Marine Timer and press **ENTER** to change the marine timer's behavior.
4. Highlight the time field, press **ENTER**, and then use the **Rocker** key to enter a new time.

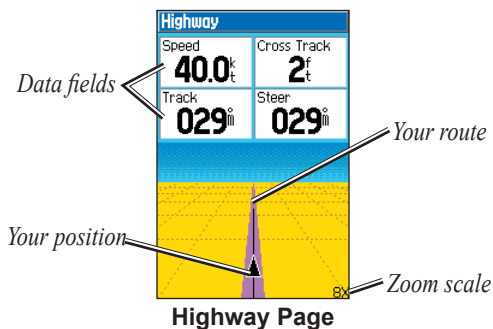


TIP: Be sure that the **Message Beep** sound is on so you can hear the warnings for the timer. Refer to page 79 for more information.



Highway Page

When you are navigating, the Highway page provides graphic steering guidance to your destination as well as data field information about the route. Press **PAGE** or **QUIT** repeatedly to open the Highway page.



The top of the Highway page features user-selectable data fields displaying useful navigation information. The highway graphic displays your present position, your route, and any waypoints and route points that are visible. As you head toward your destination, the highway perspective moves to indicate your progress to the waypoint and which direction you should steer to stay on course. Use the **IN** and **OUT** keys to adjust the zoom setting of the Highway page.

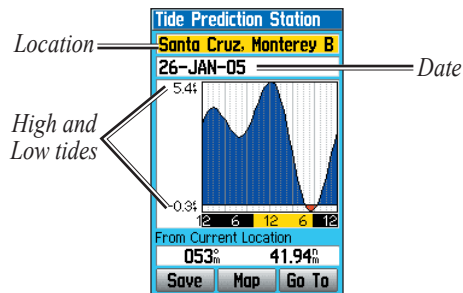
You can change the layout of the Highway page and customize the data fields. See page 100 of the “Appendix” for a listing of the available data fields and their definitions. Also see page 76 for information about customizing the layout of the page. Press **MENU** to open the options menu to change the layout and data fields.





Tide Prediction Station Page

The Tide Prediction Station page displays a graphical chart of the tide station information over a 24-hour period. You can view information for different dates, times, and tide stations. Press the **PAGE** or **QUIT** key repeatedly to open the Tide Prediction Station page.



Tide Prediction Station Page

The chart shows a 24-hour period of time, starting at midnight station time, with the time progressing from left to right. The solid vertical lines represent 4-hour increments; the dotted vertical lines represent 1-hour increments.

The tide height is shown by the shaded area; higher tides are taller and lower tides are shorter.

The bottom of the page indicates the station's heading and distance from your current location. The top of the page displays the tide station and date being referenced.

You can search for Tide Prediction Stations using the Marine category in the Find Menu. You can also save a station just as you would any other marine point.

To view a tide chart for a different station:

1. From the Tide Prediction Station page, highlight the top field and press **ENTER**. The Find Menu opens showing the Tide Stations.
2. Press **MENU** and select **Change Reference** if desired. The list is then updated with stations near the location you selected on the map.
3. Select the desired station from the list and press **ENTER**.
4. The Tide Prediction Station page displays for the tide station you selected.





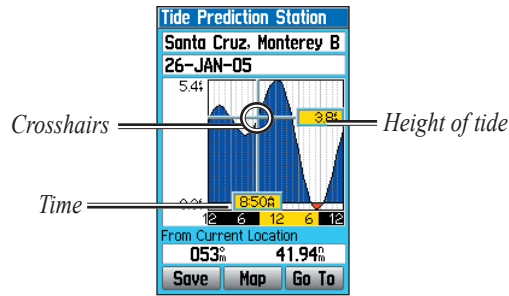
To view the tide chart for another date:

1. From the Tide page with the desired chart displayed, highlight the **Date** field and press **ENTER**.
2. Enter the desired date with the **Rocker** key and press **ENTER**. You can also use the **Zoom IN** and **OUT** keys to view information for another date.
3. Press **ENTER** when finished. The unit displays the chart for the selected date.

To use the current date again, highlight the **Date** field. Press **MENU**, highlight **Use Today's Date**, and press **ENTER**.

To scroll the chart:

1. From the Tide page with the desired chart displayed, press the **Rocker** key Down to select the chart.
2. Press the **Rocker** key Right or Left to scroll the chart. The time and height of the tide at the crosshairs is displayed in boxes, as shown.
3. To stop scrolling, press **QUIT**.



Scrolling the Tide Chart

To view the high and low tides:

1. Open the Tide page and select the desired tide station and date.
2. Press **MENU**, highlight **Show High/Lows**, and press **ENTER**.

The high and low tides are listed for the AM and PM hours. To view the chart again, press **MENU**, highlight **Show Chart**, and press **ENTER**.

Tide Prediction Station		
Santa Cruz, Monterey B		
26-JAN-05		
High	1:48 ^h	4.3 ^f
Low	6:41 ^h	3.0 ^f
High	12:15 ^h	5.4 ^f
Low	7:18 ^h	-0.3 ^f
From Current Location		
	053 ^o	41.94 ⁿ
Save	Map	Go To

High and Low Tide Page





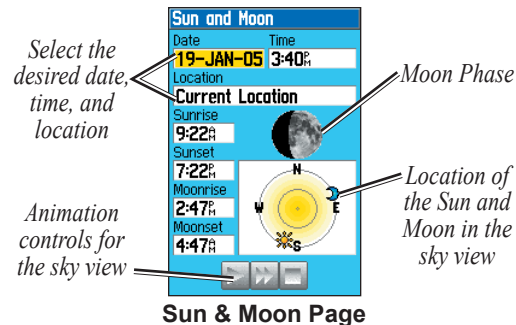
Sun & Moon Page

The Sun & Moon page provides you with sun rise/set and moon rise/set times. A graphic display of the moon phase is also displayed. You may view Sun & Moon information for any date or location. You can also use the play, fast forward, and stop buttons to view an animation of the Sun & Moon.

To view Sun & Moon information for a different date or time:

1. Use the **Rocker** key to highlight the **Date** or **Time** field and press **ENTER**.
2. Use the **Rocker** key to enter the desired date or time. You can use the **IN** and **OUT** keys to change the date.
3. Press **ENTER** when finished. The unit displays the sun and moon information for the date or time you selected.

To use the current date again, highlight the **Date** field. Press **MENU**, highlight **Use Current Date**, and press **ENTER**.



To view Sun & Moon information for a different location:

1. Use the **Rocker** key to highlight the **Location** field and press **ENTER**.
2. Highlight **Use Find Menu** or **Use Map** and press **ENTER**.
3. Select a point and press **ENTER**.
4. On the information page, highlight **Use** and press **ENTER**. The unit displays the sun and moon information for the location you selected.

To use your current location, press **ENTER**, highlight **Current Location**, and press **ENTER**.

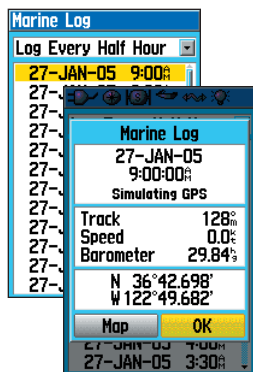




Marine Log

The Marine Log automatically records your position and heading while you are traveling in either Powerboat mode or Sailboat mode. Press **PAGE** or **QUIT** repeatedly to open the Marine Log.

Once you have established a GPS fix, the Marine Log records your position and heading and then records again every 30 minutes or the hour and half hour, by default. Up to 192 entries, or four days of entries, can be held in the log at one time. When the log is full, new entries are recorded over the oldest entries.



Marine Log and Details

To review an entry in the log:

1. Highlight the entry you want to review and press **ENTER**. The entry's details page opens.
2. Highlight **Map** and press **ENTER** to view the location of this entry on a map.

3. Highlight **OK** and press **ENTER** to close the details page.



TIP: When the log details page is open, press the **Rocker key Down** to view the details for the next entry in the log.

While in a sea mode, you can change the record interval to better suit your needs. Generally, the 30 minute default interval setting is appropriate for most trips. If you are making a long trip, you may want to set the interval to 4 hours.

To change the marine log record interval:

1. Highlight the top field and press **ENTER**.
2. Select the record interval from the list and press **ENTER**.

You can manually record an entry at any time without interrupting the programmed record interval.

To manually record a Marine Log entry:

1. Open the Marine Log and press **MENU**.
2. Highlight **Add Log Entry** and press **ENTER**. The date and time, and your track, speed, and position are recorded.





Satellite Page

For information about the Satellite page, refer to “Getting Satellite Signals” on pages 5 and 6.

Position Data Page

The Position Data page displays important navigation data while navigating a route. By default, the page displays six user-selectable data fields, your current latitude and longitude, and the nearest point. Press **PAGE** or **QUIT** repeatedly to open the Position Data page.

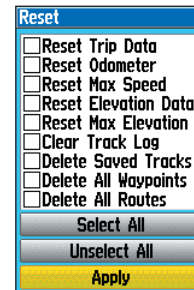
Position	
Speed 40.0 ^k t	Track 028 ^m
Ambnt Press 29.03 ^h g	Time of Day 3:40 ^p m
Sunrise 9:22 ^a m	Sunset 7:22 ^p m
Location N 36°45.533' W 122°55.567'	
From Davenport: • 38.4 ^m S 232 ^m	

Position Data Page

Open the Position Data page and press **MENU** to open the options menu. You can set up the layout of the page (**Big Numbers** or **Small Numbers**). You can also change the data fields. For an explanation of the data fields, refer to page 100.

To reset the trip information:

1. Open the Position Data page. Press **MENU**, highlight **Reset...**, and press **ENTER**.
2. The Reset page opens. Highlight the item you want to reset and press **ENTER** to place a check mark in the box.
3. To select or unselect all items, highlight the button at the bottom of the page and press **ENTER**.
4. To reset the information you selected, highlight **Apply** and press **ENTER**.



To change the nearest point type:

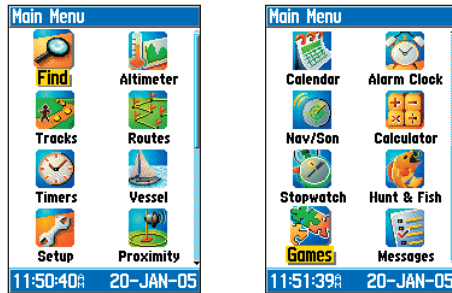
1. Open the Position Data page. Press **MENU**, highlight **Change Nearest Type**, and press **ENTER**.
2. Highlight the desired point type and press **ENTER**.



ADDITIONAL FEATURES

The Main Menu features some additional pages that will be useful to you as you plan trips and use your 76CS Plus. Some of these pages have already been discussed in-depth in previous sections. This section only contains the additional pages and features found in the Main Menu that have not been discussed yet.

Press the **MENU** key twice to open the Main Menu. To view a particular page, highlight the page's icon and press **ENTER**.



Main Menu

Using the Altimeter



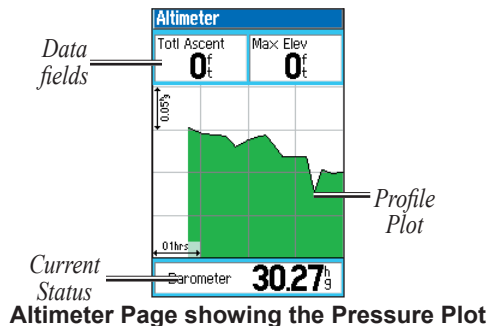
Your 76CS Plus contains a barometer that determines the ambient air pressure, or the pressure around you. Once a pressure reading has been obtained, you need to calibrate the barometric altimeter.

Refer to page 7 to learn how to calibrate your altimeter. For more information about using the Altimeter, refer to the FAQ section of the Garmin Web site: <http://www.garmin.com/support/faqs/>.

The Altimeter page provides you with a variety of elevation and pressure information. You must have an active track log to see the elevation profile. If you have cleared your track log, you will not be able to view your elevation profile. To clear the plot and start again, you must clear the Track Log.



The profile, located in the center of the page, displays elevation changes. You can change the profile display to show pressure changes. The bottom of the page displays the current elevation and your current rate of ascent or descent when moving. It can also display the ambient pressure and time of measurement.



Plotting Over Time or Distance

By default, the Altimeter displays the changes in elevation over distance. You can view the changes in elevation over time: press **MENU**, highlight **View Over Time**, and press **ENTER**.

Viewing Pressure Plots

You can display changes in barometric pressure over time: press **MENU**, highlight **View Pressure Plot**, and press **ENTER**.

After you have displayed the pressure plot, you can then view the ambient pressure or the barometer. You can only view the elevation plot over distance; you cannot view the pressure plot over distance.

Adjusting the Zoom Ranges

You can adjust the scale of the plot (zoom range).

To adjust the graph's scale:

1. Display the desired plot and press the **Rocker** key Up or Down to open the Zoom Ranges sliders.
2. Press the **Rocker** key Up or Down to adjust the vertical distance or pressure and Left or Right to adjust either the time or distance.
3. Press **ENTER** to return to the plot. The plot is redrawn with your specified zoom ranges.



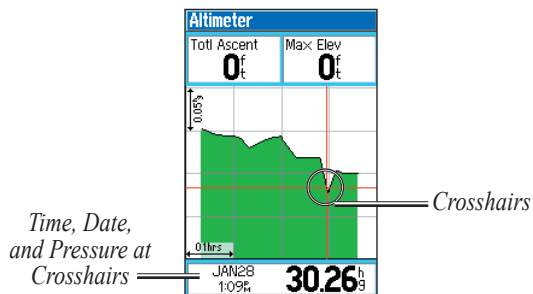


Viewing Points

You can scroll through a recorded elevation or pressure profile to view data for any point along the plot. As the crosshairs move across the profile, the status window at the bottom of page changes to display the date, time, and altitude or pressure for the point at the crosshairs. You can then view the location at which the plot information was recorded on a map.

To view points:

1. Display the plot and press the **Rocker** key Left or Right to show the red crosshairs.
2. Press the **Rocker** key Right or Left to scroll the crosshairs across the profile.



If you are viewing points on the Elevation Plot, press **ENTER** to view the location of the crosshairs on the map. Press **PAGE** or **QUIT** to close the map.

Resetting the Data

You can reset the elevation data and the maximum elevation data using the Reset page.

To reset the elevation data:

1. Open the Altimeter or Position Data page and press **MENU**. Highlight **Reset...** and press **ENTER**.
2. The Reset page opens. Highlight the item you want to reset and press **ENTER** to place a check mark in the box.
3. To reset the information you selected, highlight **Apply** and press **ENTER**.

Setting Up the Altimeter

Press **MENU**, select **Altimeter Setup**, and press **ENTER** to setup the altimeter. You can turn on **Auto Calibration** and enable a fixed or variable elevation for the **Barometer Mode**.





Setting the Timers



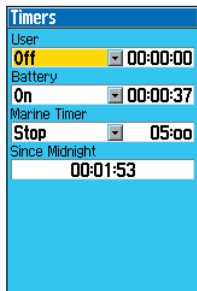
You can set various timers using the Timers page. To open the Timers page, press **MENU** twice, select **Timers** from the Main Menu, and press **ENTER**.

User—provides a user timer. Set the timer to **Count Up** or **Count Down**. You can also **Reset** the timer and turn it **Off**. To the right of this field, enter a time to use when counting up or down.

Battery—allows you to turn on or off the battery useful life timer, and reset the timer when new batteries are installed.

Marine—displayed on the Compass page. See page 55 for information about setting the marine timer.

Since Midnight—the time the unit has been turned on since midnight. This will reset if you restore all of the unit's settings to the defaults. See page 81.



Setting Your Alarm Clock

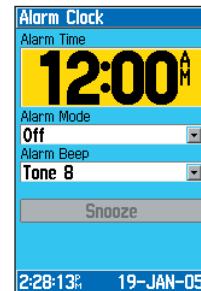


Another feature of your 76CS Plus is that you can set it as a alarm clock. When the alarm goes off, a tone sounds and a message appears on the screen. If your unit is off, it will automatically turn on when the alarm goes off.

To set your alarm clock;

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Alarm Clock** and press **ENTER**.
3. Press **ENTER** to set the time using the Rocker key. When you have entered the proper time, press **ENTER**.
4. Highlight **Alarm Mode** and press **ENTER**. Select **On** and press **ENTER**.
5. Highlight **Alarm Beep** and press **ENTER** to select a new tone.

Highlight **Snooze** and press **ENTER** to snooze the alarm for seven minutes.





Using the Calendar



The Calendar displays sun and moon information for the selected day. You can also add points and routes to any date on the calendar.

Highlight the arrows at the top of the page and press the **Rocker** key Right or Left to view a different week, day, or month. Press **MENU** to display the options menu.

To add a point to the calendar:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Calendar** and press **ENTER**. Highlight the day to which you want to add the point.
3. Press **MENU**, highlight **Add Point**, and press **ENTER**.
4. Use the Find Menu to select the desired point. Press **ENTER** to view the point's information page.
5. Highlight **Use** and press **ENTER** to add the point to the calendar.

Calendar		
◀ JAN-14-05 ▶		
Sun 9	☀ 9:24a	-7-12a ●
Mon 10	☀ 9:24a	-7-13a ●
Tue 11	☀ 9:23a	-7-14a ●
Wed 12	☀ 9:23a	-7-15a ●
Thu 13	☀ 9:23a	-7-16a ●
Fri 14	☀ 9:23a	-7-17a ●
Sat 15	☀ 9:23a	-7-17a ●

**Calendar Page
in Week View**

To add a route to the calendar:

1. Open the Calendar and highlight the day to which you want to add the route.
2. Press **MENU**, highlight **Add Route**, and press **ENTER**.
3. From the Saved Routes List, highlight the route you want to add and press **MENU**.
4. Highlight **Add to Calendar** and press **ENTER**.

Week View

The Week View provides sun rise and set times and an images of the moon phase. The entire week is visible. Days with points or routes added to them are highlighted in green.

Day View

The Day View displays the same information as the week view, only one day at a time. Points and routes added to the day are listed.

Month View

The Month View provides many of the same elements as Day view, but the entire month is visible. Sunrise and set times for the selected date are shown.



Setting Navigation and Sonar Alarms



The Alarms page allows you to set navigation and sonar alarms. When an alarm goes off, the unit beeps five times and displays a message.

To set an alarm:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Alarms** and press **ENTER**.
3. Press the **Rocker** key Right or Left to open the **Navigation** or **Sonar** Alarms page.
4. Make the desired changes to the alarms.

Navigation Alarms

Next Turn—sets an alarm to indicate the next turn in a route. Select **Dist** or **Time** to enter a specific distance/time before you reach the next turn to sound the alarm.

Arrival—sets an alarm to sound when you are a specified distance or time away from a destination waypoint.

Navigation	
Navigation ▾	
Next Turn	
Time	00:00:15
Arrival	
Time	00:00:15
Off Course Alarm	<input type="checkbox"/> 0.00mi
Anchor Drag Alarm	<input type="checkbox"/> 0.0ft

Off Course—sets an alarm if you are off your desired course. Place a check mark in the box and enter a distance.

Anchor Drag—sets an alarm to sound when you have exceeded a specified drift distance. Place a check mark in the box and enter a distance.

Sonar Alarms

Shallow Water/Deep Water—sets an alarm to sound when you enter an area of water that is too shallow or deep. Place a check mark in the box and enter a distance. You must be receiving sonar NMEA data for this function to work.

Speed Filter—allows the unit to average speed readings. If you select **User**, enter a time period to wait between speed readings. Changing the Speed Filter setting causes a status message to appear when you turn on the unit.

Sonar	
Sonar ▾	
Shallow Water Alarm	<input type="checkbox"/> 20.0ft
Deep Water Alarm	<input type="checkbox"/> 100.0ft
Speed Filter	Auto ▾





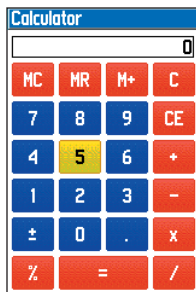
Using the Calculator



You can use your 76CS Plus as a regular or scientific calculator.

To use the calculator:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Calculator** and press **ENTER**.
3. Use the **Rocker** key to highlight the desired button and press **ENTER**.
4. Continue pressing the buttons using the **Rocker** and **ENTER** keys until the calculation is complete.



To use Scientific functions, press **MENU**, highlight **Scientific** and press **ENTER**.

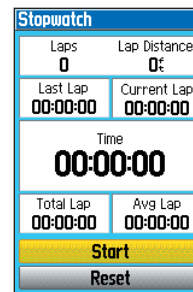
Using the Stopwatch



You can use your 76CS Plus as a stopwatch and lap timer. You may also have the unit create a lap automatically based on distance.

To use the stopwatch:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Stopwatch** and press **ENTER**.
3. To start the stopwatch, highlight **Start**. Press **ENTER**.
4. To mark a lap, highlight **Lap** and press **ENTER**.
5. To stop the stopwatch, highlight **Stop**. Press **ENTER**.
6. To reset the stopwatch, highlight **Reset** and press **ENTER**.



To create a lap automatically by distance:

1. Press **MENU**, highlight **Lap by Distance** and press **ENTER**.
2. Press **MENU**, highlight **Set Lap Distance** and press **ENTER**.
3. Enter the new value and units, and then press **ENTER**. Highlight **OK** and press **ENTER**.





Viewing Hunt & Fish Information



The Hunt & Fish page provides you with predictions of the good and best times to hunt and fish in a selected location on a specific date.

To display the Hunt & Fish information:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Hunt & Fish** and press **ENTER**.

To view Hunt & Fish information for a different date:

1. Highlight the **Date** field and press **ENTER**.
2. Use the **Rocker** key to change the digits of the date to the desired date.
3. Press **ENTER** when finished. The unit displays the information for the date you entered.

Hunt & Fish	
Date	25-JAN-05
Location	Current Location
Prediction	Excellent Day
Best Times	11:35 ^{AM} — 1:35 ^{PM} 11:51 ^{AM} — 1:51 ^{PM}
Good Times	5:24 ^{PM} — 6:24 ^{PM} 5:46 ^{PM} — 6:46 ^{PM}

To use the current date again, press **MENU**, highlight **Use Current Date**, and press **ENTER**.

To view Hunt & Fish information for a different location:

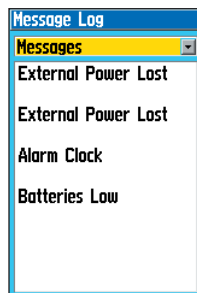
1. Use the **Rocker** key to highlight the **Location** field and press **ENTER**.
2. Highlight **Use Map** and press **ENTER** to use the Rocker key and the Map page to select a location. Or, highlight **Use Find Menu** and press **ENTER** to use the Find Menu to select the new location.

The unit displays the Hunt & Fish information for the selected location. To use the current location, highlight the **Location** field. Press **ENTER**, highlight **Current Location**, and press **ENTER**.



Viewing Messages

The Message Log displays a list of messages generated by your 76CS Plus. Use the **Rocker** key to scroll through the entire list of messages on the Log. Use the Log Filter to display only the message types that you want to view.

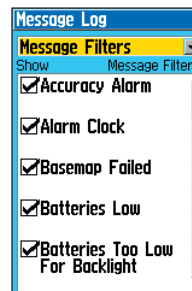


To view the messages:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Messages** and press **ENTER**.
3. Use the **Rocker** key to highlight the desired message. Press **ENTER** to view detailed information about that message.

To show/hide messages using the Log Filter:

1. Press **MENU** twice to open the Main Menu.
2. Highlight **Messages** and press **ENTER**.
3. Use the **Rocker** key to highlight **Message Filters**. By default all messages are displayed.



Message Log Filter

4. Use the **Rocker** key to highlight the message you want to hide and press **ENTER**. The check mark is removed from the **SHOW** check box.
5. Highlight the message and press **ENTER** to show it again.

Playing Games



The 76CS Plus provides games as an entertainment feature. Several of these games use GPS as a component of the game.

To select and play a game:

1. Press **MENU** twice to open the Main Menu.
2. Use the **Rocker** key to select Games and press **ENTER**.
3. Use the **Rocker** key to highlight the desired game and press **ENTER**. The game opens and displays a brief description.
4. Press **ENTER** to begin playing the game.
5. Press **MENU**, highlight **Turn Sound Off**, and press **ENTER**, if you want the sound off.

IMPORTANT WARNING: Playing these games may distract your attention from observing objects in your path. When playing any of the games where you are moving about on a real playing field, use caution in selecting an area and ensure that it is free of hazards such as holes, obstructions, and vehicular traffic.

Memory Race



Memory Race is like playing the standard memory game with GPS; move around the field to discover what each card's symbol is. Just as in the standard memory game, you must match the most symbols to win.



Unopened symbol



Example of a symbol

To play Memory Race:

1. Highlight **Memory Race** from the Games Menu and press **ENTER**.
2. Select the desired Grid or Square Size, highlight **Start**, and press **ENTER**.
3. The game board opens. Move around an open area to move to each square. Press **ENTER** to view the square's symbol. Remember it!
4. Repeat until you have matched all of the pairs.



Virtua Maze

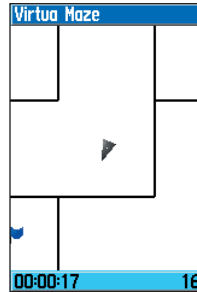


This GPS game creates a virtual maze on the screen and you must explore it to collect flags.

The lower right corner of the screen displays how many flags you still need to find and the time elapsed. You can also orient the maze ahead of you and turn the sound off by pressing **MENU**.

To play Virtua Maze:

1. Highlight **Virtua Maze** from the Games Menu and press **ENTER**.
2. Select the desired Maze Size and Difficulty, highlight **Start**, and press **ENTER**.
3. The game board opens. Move around the maze and collect the flags.
4. If desired, press **MENU**, select **Cheat**, and press **ENTER** to see the entire maze. You will be penalized five minutes and the timer will count seconds by 10 instead of 2. Press **ENTER** again to turn off the cheat mode.



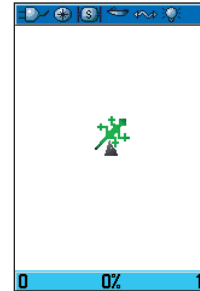
GekoSmak



GekoSmak is a GPS-based game that features you as the player piece. You need to smack Gekos with a hammer to win!

To play GekoSmak:

1. Highlight **Virtua Maze** from the Games Menu and press **ENTER**.
2. Select the desired Field Size, Difficulty, and map orientation. Then highlight **Start**, and press **ENTER**.
3. The game board opens. In measured rhythm, Gekos appear on the screen. Before the Geko disappears, move toward the Geko and press the **ENTER** key to smack the Geko with a hammer.



If you hit the Geko, an “!” displays above the hammer, if not, just a hammer displays momentarily.

Nibbons



In this GPS game, you must walk around the board collecting the flags as they appear. As you walk, your “tail” grows: don’t walk on it!

You may travel anywhere on the screen but you cannot walk on your tail, or you will lose a life. As an added challenge, you must also avoid the Skulls that chase after you.

To play Nibbons:

1. Highlight **Nibbons** from the Games Menu and press **ENTER**.
2. Select the desired Field Size and Difficulty, highlight **Start**, and press **ENTER**.
3. The game board opens. Walk around the open area to collect the flags. Be careful of the skulls.
4. As you walk, your tail grows. Do not step on it, or you lose a life!



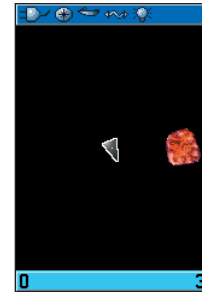
Gekoids



This game is all about blasting Gekoids and avoiding being hit by Gekoids. You can play this game moving around indoors or outdoors.

To play Nibbons:

1. Highlight **Nibbons** from the Games Menu and press **ENTER**.
2. Select the desired Field Size, Location, map orientation—Northwards or Ship up (your ship always points up).
3. Highlight **Start**, and press **ENTER**.
4. The game board opens. Gekoids will start flying at you. Turn to face the Gekoid and press **ENTER** to fire.





Beast Hunt

Find and defeat the dragon before it breathes fire at you. If you fall into one of the pits while navigating a maze of platforms, your game is over. From time to time, you will be transported by slides to a different platform.

If you fall into a pit, you lose. If you jump into the dragon, you lose. If you shoot an arrow and miss the dragon, you lose.

Press **MENU** to read the Help file, turn the sound off, or quit the game (or press the **QUIT** key).



You



Dragon



Arrow



Pit



Safe Platform



Slide



Dragon Near



Pit Near

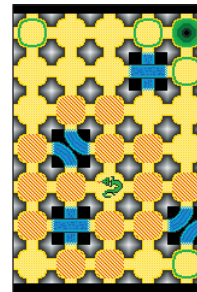


Pit and
Dragon Near

To play Beast Hunt:

1. Highlight **Beast Hunt** from the Games Menu and press **ENTER**.
2. Read the directions on the prompt and then press **ENTER**
3. Select your Difficulty Level and press **ENTER**. Select the Visibility Level and press **ENTER**.
4. Use the **Rocker** key to jump from platform to platform.
5. To shoot an arrow, press **ENTER** and then use the **Rocker** key to point the arrow. Press **ENTER** to shoot.

Example Beast Hunt Board





CUSTOMIZING YOUR 76CS PLUS

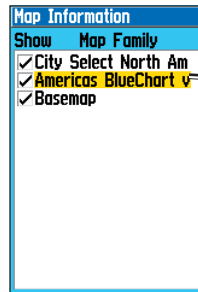
Customize your unit using the Main Menu, the Setup Menu, and the page's options menu. Changing some settings causes the System Settings page to appear after you turn on the unit.

Setting Up the System

Customize how your 76CS Plus looks and sounds.

Enabling Map Data

Turn on maps that are loaded on your 76CS Plus unit.



*Map Family highlighted. Press **ENTER** to view the individual maps in the family.*

Map Information Page

To enable map families:

1. Access the Map page and press **MENU**.
2. Highlight **Map Information** and press **ENTER**. The first page shows the Map Families stored on the unit and if they are enabled (shown).
3. To enable a Map Family, highlight the check box and press **ENTER** to place a check mark in the box.
4. Press **QUIT** to exit.

To enable individual maps:

1. From the Map Information page, highlight a Map Family and press **ENTER**.
2. To enable a map, highlight the box next to the name, and press **ENTER** to place a check mark in the box.
3. To show or hide all maps, press **MENU**, select one of the options (**Show All**, **Hide All**, or **Show Defaults**), and press **ENTER**.
4. Press **QUIT** to exit.

To view detailed information about an individual map, highlight the map name in the list and press **ENTER**.





Changing the Page Layout and Data Fields

You can adjust how the following pages look on the screen and their data fields: Map, Compass, Highway, and Position Data pages.

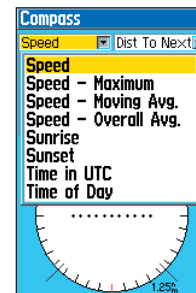
To set up the page layout:

1. Press **PAGE** or **QUIT** to display the page you want to change.
2. Press **MENU** to open the options menu.
3. Highlight **Set Up Page Layout** and press **ENTER**.
4. Select the desired option and press **ENTER**.
The options vary between the four usage modes and the page you are setting up.

To change a data field:

1. Press **PAGE** or **QUIT** to display the page you want to change.
2. Press **MENU** to open the options menu.
3. Highlight **Change Data Fields** and press **ENTER**.
4. Highlight the data field you want to change and press **ENTER**.
5. Press Up or Down on the **Rocker** key to highlight the type of data you want to display and press **ENTER**.
6. Press **QUIT** to exit.

Changing a Data Field





Adding a Welcome Message



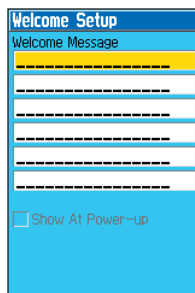
The Welcome Setup page allows you to enter information, such as your name and address, that the unit can display when it is turned on. This feature can be helpful if your unit is ever misplaced.

To open the Welcome Setup page, press **MENU** three times to open the Setup Menu. Select **Welcome** and press **ENTER**.

Enter the desired information in the fields. You do not need to enter information in every field.

To display this information at power up, highlight the box next to **Show at Power-up**. Press **ENTER** to place a check mark in the box. To hide the welcome information at power-up, remove the check mark from the box.

To clear all of the information you have entered, press **MENU** and then press **ENTER**.



Changing the System Settings



To open System Setup, press **MENU** three times, highlight **System**, and press **ENTER**.

Usage Mode—sets the unit to the desired mode.

GPS—sets the unit to operate in **Normal**, **Battery Saver**, or **Simulator** mode (for practice ONLY).

WAAS—disable and enable WAAS from this field.

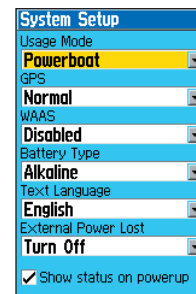
Battery Type—designates the battery type currently being used to power the unit.

Text Language—sets the on-screen language.

External Power Lost—allows you to select whether the unit remains on or turns off when external power is removed.

Show Status on Power up—displays system settings when you turn the unit on.

Software Version—press **MENU** and **ENTER** to display the unit's software version.



System Setup





Changing the Display



The Display Setup page allows you to set several features of the display, such as the color scheme.

To view the Display page:

1. Press **MENU** three times to open the Setup Menu.
2. Highlight **Display** and press **ENTER**.



Display Setup

Display Mode—sets the display to **Daytime**, **Nighttime**, or **Auto** display mode. Select **Auto** to automatically switch from day to night at sunset and change back at sunrise.

Daytime Color Scheme—selects the color scheme to use while the unit is in daytime mode.

Nighttime Color Scheme—selects the color scheme to use while the unit is in nighttime mode.

Backlight Timeout—sets the backlight to stay on once it is turned on, or to time out after a selected period of time has elapsed when using the battery. The backlight stays on regardless of this setting when external power is used.

Backlight Level—turns the backlight up or down. Press the **Rocker** key Up to increase the intensity or Down to decrease.

Main Menu—enables the Main Menu to contain text and icons (default) or text labels only.

Find Menu—enables the find Menu to contain text and icons (default) or text labels only.





Changing the Tones



The Tones Setup page allows you to customize the sounds your 76CS Plus makes.

To change the tones:

1. Press **MENU** three times to open the Setup Menu. Highlight **Tones** and press **ENTER**.
2. Highlight the tone type you want to change and press **ENTER**.
3. Highlight a tone to hear what it sounds like. Press **ENTER** to select that tone.



Tones Setup

To mute all of the tones, place a check mark in the Mute box.

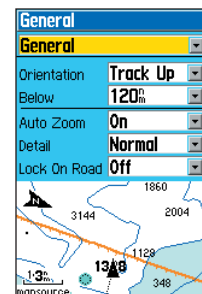
Setting up the Map Page



The Map Setup page allows you to adjust the way items are displayed on the Map page.

To change a map setup option:

1. From the Map page, press **MENU** to open the options menu, highlight **Set Up Map**, and press **ENTER**. Or, press **MENU** three times, highlight **Map**, and press **ENTER**.
2. Highlight the top field and press the **Rocker** key to the Left or Right to open the desired page (such as **General**).
3. Highlight the field you want to change and press **ENTER**.
4. Press Up or Down on the **Rocker** key to highlight the desired setting and press **ENTER**.
5. Press **PAGE** or **QUIT** to exit.



General Map Setup

Changing the Page Sequence

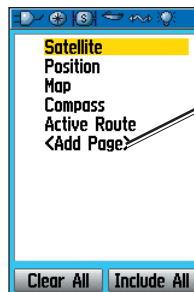


The Page Sequence Setup page allows you to add and remove pages from the page sequence or rearrange the order of the sequence. Press **PAGE** or **QUIT** to scroll through the page sequence.

If you add a page from the Main Menu to the page sequence, that page no longer appears in the Main Menu.

To change the page sequence:

1. Press **MENU** three times to open the Setup Menu.
2. Use the **Rocker** key to select **page Seq.** and press **ENTER**.
3. To move a page in the order, highlight the page and press **ENTER**. Then select **Move** and press **ENTER**. Press the **Rocker** key Up or Down until the desired position is displayed and press **ENTER**.
4. To insert a new page in the order, highlight **<Add Page>**, and press **ENTER**. Select the page you want to add and press **ENTER**.



*Highlight <Add Page> and press **ENTER** to add a page to the sequence.*

Page Sequence Setup

5. To remove a page from the page sequence, highlight the page you want to remove and press **ENTER**. Select **Remove** and press **ENTER**.
6. Highlight **Clear All** and press **ENTER** to remove all pages but the Map page from the sequence.
7. Highlight **Include All** and press **ENTER** to include all pages in the sequence.

To restore the page sequence to its original order, press **MENU** and then press **ENTER**.

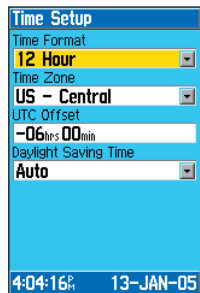


Setting the Time



The Time Setup page allows you to set the time format and zone. You can also set the unit to conform to Daylight Saving Time.

To open the Time Setup page, press **MENU** three times, select **Time**, and press **ENTER**. The current time and date are displayed at the bottom of the page.



Time Setup

If the incorrect date is displayed, press **MENU**, highlight **Set Date**, and press **ENTER**. You will then be prompted to enter the current year. The 76CS Plus will use this information when gathering satellite data to display the correct date.

76CS Plus Owner's Manual

Customizing the Units



The Units Setup page allows you to customize measurement units for the entire system. To open the Units Setup page, press **MENU** three times to open the Setup Menu. Select **Units** and press **ENTER**.

Restoring Defaults

Many pages allow you to restore the default settings (the original factory settings).

To restore defaults:

1. Open the page you want to restore to the factory defaults.
2. Press **MENU**.
3. Highlight **Restore Defaults** and press **ENTER**.

To restore all of unit's settings to the defaults, hold the **PAGE** and **ENTER** keys and turn on the unit. This will erase all user data, such as waypoints.



Restoring Defaults





Customizing the Routing Settings



You can change the way the 76CS Plus generates routes and guides you to your destination in Automotive mode.

To open the Routing Setup page, press **MENU** three times to open the Setup Menu. Select **Routing** and press **ENTER**.

Guidance Method—allows the unit to calculate routes based on the following criteria:

- **Prompted**—you will be asked for your route generation preference before calculation.
- **Faster Time**—calculates faster routes, but they may be longer in distance.
- **Shorter Distance**—calculates routes with a shorter distance, but they may take longer to drive.

Next Turn Pop-up—turns on or off the Next Turn pop-up window.



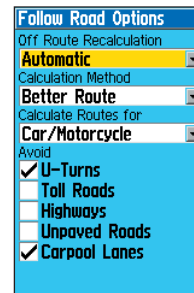
Follow Road Options

Off-Route Recalculation—determines whether the unit prompts you when it is recalculating (**Prompted**); announces the automatic recalculation (**Automatic - Announced**); or recalculates silently and automatically (**Automatic - Silent**).

Calculation Method—sets how the unit searches for the route.

Calculate Routes for—optimizes route calculation for your vehicle type, as some roads have vehicle-based restrictions.

Avoid—allows you to avoid certain road types and maneuvers on your route. The unit uses these road types only if alternative routes take you too far out of your way or if no other roads are available.





Changing the Location Settings



To open the Location Setup page, press **MENU** three times to open the Setup Menu. Select **Location** and press **ENTER**.

Refer to page 96 of the “Appendix” for more information about location formats and map datums. Also visit the National Geospatial-Intelligence Agency (NGA) at <http://www.nima.mil>.

Changing the Position Format

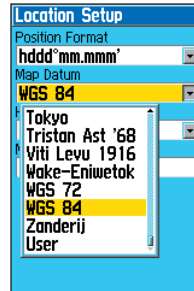
When you change the **Position Format**, you change the coordinate system in which a given position reading is displayed. The default format is latitude and longitude in degrees, minutes, and thousandths of a minute (hddd°mm.mmm).

You should only change the position format if you are using a map or chart that specifies a different position format.



Selecting a Different Map Datum

Datums are used to describe geographic positions for surveying, mapping, and navigation and are not actual maps built in the unit. You should only change the datum if you are using a map or chart that specifies a different datum. Changing the Map Datum causes a status message to appear when you turn on the unit.



Setting the Map Datum.

The default setting is WGS 84. The unit automatically chooses the best datum depending upon your chosen position format.



WARNING: *Selecting the wrong map datum can result in substantial position errors. When in doubt, use the default WGS 84 datum.*

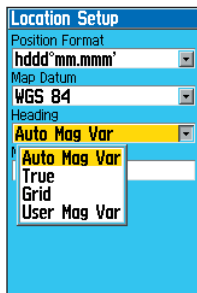




Selecting a Different Heading

The Location Setup page also allows you to select a different heading. Changing the Heading causes a status message to appear when you turn on the unit.

Setting the Heading.



Auto Mag Var—(default) provides magnetic north heading references that are automatically determined from your current position.

True—provides headings based upon a true north reference.

Grid—provides headings based on a grid north reference (and is used in conjunction with the grid position formats).

User Mag Var—allows you to specify the magnetic variation at your current position and provides magnetic north heading references based upon the variation you enter. Enter the magnetic variation of your current position in the **Magnetic Variation** field if you have selected **User Mag Var** for the heading.



WARNING: *If User Mag Var is selected, the unit does not automatically calculate and update the magnetic variation at your present position. You must update the magnetic variation as your position changes. Failure to update this setting may result in substantial differences between the information displayed on your unit and external references, such as a magnetic compass.*





Changing the Interface Format

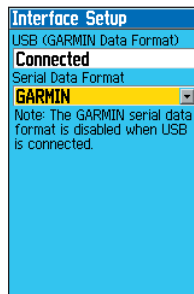


The Interface Setup page allow you to control the input/output format used when connecting your unit to external devices. To open the Interface Setup, press **MENU** three times to open the Setup Menu. Highlight **Setup** and press **ENTER**.

USB—displays whether is USB cable is connected to the 76CS Plus.

Serial Data Format—sets the data format to one of the following:

- **Garmin**—the proprietary format used to exchange data with a PC or another Garmin 76CS Plus. Garmin Data Transfer is disabled when the USB is connected, and the unit automatically switches to USB format.



- **GARMIN DGPS**—used to connect the 76CS Plus with a Garmin DGPS beacon receiver.
- **NMEA In/NMEA Out**—supports the input/output of standard NMEA 0183 version 3.01 data and sonar NMEA input support for the DPT, MTW, and VHW sentences.
- **Text Out**—allows the unit to output simple text data that includes, data, time, position, and velocity. The Baud can be set to 1200, 2400, 4800, or 9600.
- **RTCM In**—allows Differential GPS (DGPS) input using a standard RTCM format.
- **RTCM In/NMEA Out**—allows Differential GPS (DGPS) input using a standard RTCM format and also provides NMEA 0183 version 3.01 output.
- **RTCM In/Text Out**—allows Differential GPS (DGPS) input using a standard RTCM format and also outputs simple text data that includes data, time, position, and velocity.
- **None**—provides no interfacing capabilities.



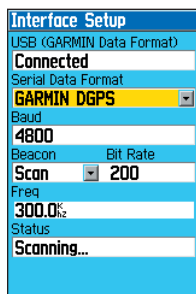


CUSTOMIZING YOUR 76CS PLUS > CHANGING THE INTERFACE FORMAT

If you select GARMIN DGPS or RTCM In/NMEA Out format, you can control a differential beacon receiver directly from your 76CS Plus. You can have the unit automatically scan for the DGPS beacon signal, or you can enter the beacon frequency and bit rate on the unit, and the information will be used to tune the beacon receiver. If you use a DGPS receiver, WAAS capability is automatically turned off.

To have the unit automatically scan for a frequency:

1. Set the unit to **GARMIN DGPS** or **RTCM In/NMEA Out**.
2. Highlight the **Beacon** field and press **ENTER**.
3. Highlight **Scan** and press **ENTER**. The numbers in the **Freq** field change as the unit scans from 284 kHz to 325 kHz, 200 bit rate, then 100, at 6-second intervals.



The Status field displays one of the following:

- **Tuning**—the unit is attempting to tune to the specified frequency and bit rate.
- **Scanning**—the unit is automatically scanning through the frequencies and bit rates.
- **Receiving**—the unit is receiving DGPS signals and is ready for operation.
- **Check Wiring**—the unit is not making connection with the DGPS receiver.

To restart the scan:

1. Press **MENU**.
2. Highlight **Restart Scan** and press **ENTER**.

To manually enter a frequency and bit rate:

1. Set the unit to **GARMIN DGPS** or **RTCM In/NMEA Out**, use the **Rocker** key to highlight the **Beacon** field, and press **ENTER**.
2. Highlight **User** and press **ENTER**.
3. Highlight the **Frequency** or **Bit Rate** field, press **ENTER**, and enter a frequency or bit rate. Press **ENTER** when done.





When the unit is receiving a DGPS signal, the SNR (Signal to Noise Ratio) and Distance fields show data. The SNR range is 0 dB to 30 dB, with 30 being the best. The Distance field may or may not show data, depending upon the signal being broadcast from the DGPS site.

The DGPS beacon transmitters are operated by the United States Coast Guard (or similar government agency in other countries), which is responsible for their accuracy and maintenance. For DGPS transmitter problems or to find the most updated list of frequencies and coverage areas, contact your local USCG or visit their Web site at <http://www.navcen.uscg.gov/>.

NMEA Output Setup

If you are going to interface the 76CS Plus with another piece of equipment (such as a radar or autopilot), the unit needs to be set to output NMEA data. The NMEA data transmission can be customized to keep the output rate at two seconds. If too many NMEA sentences are activated, the unit may take longer than two seconds to update.

76CS Plus NMEA Sentence Output (NMEA version 3.01 compliant):

- Always transmitted: GPRMC, GPGGA, GPGLL, GPBWC, GPVTG, GPXTE, GPRMB
- Switchable sentences: GPGSA, GPGSV, GPWPL, GPRTE
- GARMIN proprietary: PGRME, PGRMZ, PGRMM





APPENDIX

Specifications

- Size:** 6.2" H x 2.7" W x 1.4" D
- Weight:** 7.6 ounces (216 g) with batteries
- Display:** 1.5" W x 2.2" H, 256-color, high resolution, transreflective TFT (160 x 240 pixels) Backlit
- Case:** Rugged, fully gasketed, water resistant to IEC Standard 60529 IPX7
- Antenna:** Built-in quad helix; MCX connector for remote antenna capability
- Compass:** Accuracy: +/-5 degrees¹
Resolution: 1 degree
- Altimeter:** Accuracy: +/-10 feet¹
Resolution: 1 foot
- Keypad:** Nine multifunction backlit keys
- Operating Temperature Range:**
5 to 158°F (-15 to 70°C)²

Performance Specifications

Receiver: WAAS Enabled™, 12 parallel channel

Acquisition Time:

Warm: Approx. 15 seconds

Cold: Approx. 45 seconds

AutoLocate®: Approx. 5 minutes

Update Rate: Once per second, continuous

GPS Accuracy:

Position: < 15 meters (49 feet), 95% typical³

Velocity: 0.05 meter/sec steady state

DGPS Accuracy:

Position: 3–5 meters (10–16 feet), 95% typical⁴

Velocity: 0.05 meter/sec steady state

Dynamics: Performs to specifications to 6 g's

Interfaces: NMEA 0183 version 2.3

RTCM SC-104 (for DGPS corrections)

RS-232 and USB for PC interface





Power Specifications

- Battery:** Two 1.5 Volt AA batteries
Battery Life: Up to 20 hours (typical use)⁵
External Power: Up to 36 VDC (12 Volt Adapter)

Storage Specifications

- Data Storage Life:** Indefinite; no memory battery required
Map Storage: Internal, approximately 115 MB
Specifications subject to change without notice.

1. Subject to proper user calibration.
2. The temperature rating of the unit may exceed the usable range of some batteries. Some batteries can rupture at high temperatures.
3. Subject to accuracy degradation to 100 m 2DRMS under the U.S. DoD imposed Selective Availability (SA) Program when activated.
4. WAAS accuracy in North America. (DGPS using Beacon Receiver.)
5. Alkaline batteries lose a significant amount of their capacity as the temperature decreases. Use lithium batteries when operating the unit in below-freezing conditions. Extensive use of screen backlighting, electronic compass, and audible tones significantly reduces battery life.

Important Battery Information

When replacing batteries, use only new or fully charged batteries. Do not mix Alkaline, NiMH or NiCAD batteries. Rechargeable batteries may typically display less capacity than disposable batteries.

Remove the batteries from the unit if you do not plan to use it for several months. Storing batteries in the unit for prolonged periods may result in leakage and damage to the battery compartment.

Follow the manufacturer's instructions for proper care and disposal of used batteries. Do not incinerate used batteries, as internal materials may ignite with explosive violence.

Extensive use of backlighting, WAAS, and beep tones significantly reduces battery life. To set backlighting intensity and timeout, see page 78. To disable WAAS, see page 6. To mute the beep tones, see page 79.





Optional Accessories

Several optional accessories are available to enhance the operation of the 76CS Plus. To obtain replacement parts and optional accessories, contact your Garmin Dealer, Garmin Product Support in the U.S.A. at 800/800.1020, or Garmin Europe at 44/0870.8501241.



WARNING: *Garmin accessories have been designed and specifically tested for use with Garmin products. Accessories offered by other manufacturers have not been tested or approved for use with Garmin products. Use of such accessories could cause damage to the 76CS Plus and void the warranty.*

AC Adapter—provides cable to power the unit from any standard U.S.A. wall outlet.

AC/PC Adapter—provides AC adapter for a standard U.S.A. outlet and a serial connector for data transfer.

Auto Navigation Kit—provides the parts and map data to use the 76CS Plus in an automobile.

GA 29, GA 29F, and GA 27C Antennas—Garmin remote antennas.

Battery Pack—rechargeable, NiMH, AA battery kit, U.S.A. receptacle.

Marine Mount Kit—allows installation on a boat.

Bicycle Handlebar Mount Kit—allows installation on bicycle handlebar.

Power/Data Cable—allows you to connect the unit to the electrical system using the bare wires.

Cigarette Lighter Adapter—provides cable to power the unit from an automobile cigarette lighter.

PC Interface Cable—provides connection to a PC for data transfer.

Carrying Case—protects the unit when not in use.

MapSource Software CD-ROMs—offers several detailed mapping options that are compatible with the 76CS Plus, including City Select, BlueChart, Fishing Hot Spots, and Topo.

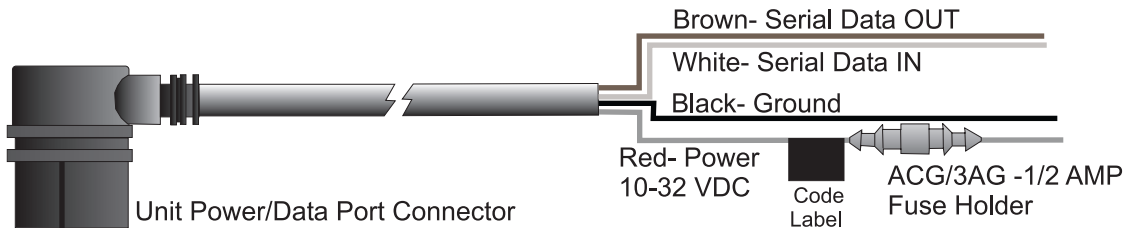
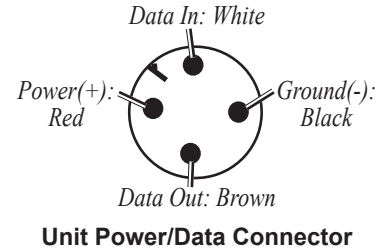


Installation Information

This section of the Appendix provides information on connecting the 76CS Plus to auxiliary devices and using xImage.

Connecting the Power/Data Cable

The power/data cable connects the 76CS Plus to an 10–32 VDC system and provides interface capabilities for connecting external devices. The color code in the diagram to the right indicates the appropriate harness connections. Replacement fuse is a ACG/3AG - 0.5 Amp fuse.





Connecting Your Unit to a Computer

Connect your 76CS Plus to your computer using the supplied USB cable to connect to a USB data port or the optional PC Interface Cable to connect to a DB-9 serial communications port.



NOTE: Fully install the Supplied Trip & Waypoint Manager software on your computer before connecting the USB cable to the computer.

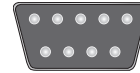
To connect your GPS to your computer:

1. Raise the rubber weather cap to expose the USB connector. Connect the small end of your cable to the USB connector on the back of the 76CS Plus. Refer to the illustration on page 1.
2. When using the supplied USB Data Cable, connect the larger end of the cable to an available USB data port (see below).



USB Data Port

When using a PC Interface Cable, connect the larger end of the cable to a serial communications port on your computer (see below).



Serial Communications Port

Information about USB Drivers

The USB drivers should have been automatically installed when you installed the MapSource program that came with your 76CS Plus. When you initially connect the 76CS Plus to a USB port, your computer may prompt you to locate the destination of the drivers for the device. You only need to install the drivers once. After the drivers are installed, your computer will always detect your 76CS Plus when it is connected. USB drivers may be updated periodically. You can find these updates at www.garmin.com.



Using xImage for Waypoint Icons

xImage allows you to exchange images between your PC and your 76CS Plus. You can download and save screen shots of any screen displayed on your unit.

xImage also allows you to download customizable waypoint symbols from compatible GPS units, customize them (if you have an image editing program on your PC), and send them back to your GPS unit.

You can download xImage from the Garmin Web site at <http://www.garmin.com/ximage/>. Refer to the help file for complete instructions about using xImage.

Interfacing

Interface formats are selected from the Interface Setup page, discussed on pages 85–86. The input/output lines on your 76CS Plus are RS-232 compatible, allowing easy interface to a wide range of external devices, including PC's, differential beacon receivers, marine autopilots, or a second GPS receiver.

The following formats are supported for connection of external devices: GARMIN proprietary Differential GPS (DGPS), NMEA 0183 version 3.01 (up to three devices), and RTCM SC-104 input (version 2.0).

The following are the Approved Sentences for NMEA 0183, version 3.01 output: GPGGA, GPGLL, GPGSA, GPGSV, GPRMB, GPRMC, GPRTE, GPVTG, GPWPL, and GPBOD. The following are the Proprietary Sentences for NMEA 0183, version 3.01 output: PGRME, PGRMZ, PGRMM, and PGRMZ.

Garmin's proprietary communication protocol is available from the Web site (www.garmin.com).



Learning about GPS

The Global Positioning System (GPS) is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the United States Department of Defense.

GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day.

There are no subscription fees or setup charges to use GPS. For more information, refer to the Garmin Web site at www.garmin.com and also read the *GPS Guide for Beginners*, which can be found on the Web site at <http://www.garmin.com/aboutGPS/manual.html>.

Common GPS Terms

Initialization—the first time a GPS receiver orients itself to its current location and collects data. After the receiver is initialized, it remembers its location and acquires a position more quickly.

Position—an exact, unique location based on geographic coordinates (Latitude and Longitude).

Route—A group of waypoints entered into the GPS receiver in the sequence you desire to navigate them.

Waypoint—a location you store in your GPS. It may be a checkpoint on a route or a significant ground feature, such as your campsite or favorite fishing spot.

What is Differential GPS (DGPS)?

The United States and Canadian governments (among others) have set up Differential GPS (DGPS) stations to transmit correction signals. They are operational in coastal areas and on many navigable river systems.

The DGPS system is available for use without a fee, but you do need a beacon receiver (compatible with the RTCM format sentences supported by your Garmin GPS) to receive DGPS signals.

Refer to the United States Coast Guard's Web site (<http://www.navcen.uscg.gov/>) for the location and status of the differential stations.





What is WAAS?

The Wide Area Augmentation System (WAAS) is an FAA-funded project to improve the overall integrity of the GPS signal and increase position accuracy for users in North America.

The system is made up of satellites and approximately twenty-five ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations, located on either coast, collect data from the reference stations and create a GPS data correction message.

According to the FAA's Web site, testing in September 2002 of WAAS confirmed an accuracy performance of 1–2 meters horizontal and 2–3 meters vertical throughout the majority of the continental United States and portions of Alaska.

WAAS is just one service provider that adheres to the MOPS (Minimum Operational Performance Standard) for global Satellite Based Augmentation Systems (SBAS). Eventually, there will be several services of worldwide geostationary communication satellites and ground reference stations.

76CS Plus Owner's Manual

All SBAS systems use the same receiver frequency; therefore, any operational SBAS system should be capable of providing your GPS unit with increased accuracy at any location in the world.

Currently, enabling WAAS on your Garmin 76CS Plus in regions that are not supported by ground stations may not improve accuracy, even when receiving signals from an SBAS satellite. In fact it can degrade the accuracy to less than that provided by GPS satellites alone. For this reason, when you enable WAAS on your Garmin GPS receiver, the receiver automatically uses the method that achieves the best accuracy. To enable WAAS, refer to page 6.

For more information, go to <http://gps.faa.gov/Programs/WAAS/waas.htm>.



Map Datums and Position Formats

What are a Map Datum and which should I use?

A datum is a mathematical model of the Earth that approximates the shape of the Earth and enables calculations to be carried out in a consistent and accurate manner. The datum is physically represented by a framework of ground monuments (i.e. trig. stations) whose positions have been accurately measured and calculated on this reference surface. Lines of latitude and longitude on a map or chart are referenced to a specific map datum. Every chart has a map datum reference, and the 76CS Plus can be set to match most of those commonly used.

If you are navigating and comparing the GPS coordinates to a map, chart, or other reference, set the map datum in the GPS unit to the same datum as the map to ensure the most accurate navigation.

What is a Position Format and which should I use?

Your current location can be viewed on the GPS in the form of coordinates. Since different maps and charts use different position formats, Garmin GPS units allow you to choose the correct coordinate system for the type of map you are using. The most common format is latitude and longitude, which is utilized by all Garmin units.

You may choose to change the position format to use with other coordinate systems. UTM/UPS (Universal Transverse Mercator/Universal Polar Stereographic) is an easy-to-use metric grid found on most USGS topographic quadrangle maps. You can also select one of several other grids, including a user-definable grid (for the advanced user).

For more information about using paper maps with your Garmin unit, refer to *Using a Garmin GPS with Paper Land Maps*, available for download at http://www.garmin.com/manuals/UsingaGarminGPSwithPaperLandMaps_Manual.pdf.

LORAN TD Setup

LORAN C is a radio navigation aid operated and maintained in the United States by the United States Coast Guard. The name LORAN is an acronym for “LOng RANge Navigation.” The LORAN system covers the entire United States and the United States Coastal Confluence Zone. From the perspective of a mariner, the system is used for ocean and coastal navigation. It can be used as a supplemental system for harbor and harbor approach navigation, and it is used for inland navigation by recreational vehicles.

LORAN TD Feature

The LORAN TD (Time Delay) feature eases the transition from using LORAN to using GPS. The unit automatically converts GPS coordinates to LORAN TDs for those who have a collection of LORAN fixes for favorite fishing spots and other waypoints recorded as TDs. You can display your position as a TD or enter waypoints as TDs. The accuracy to be expected from this conversion is approximately thirty (30) meters. When the unit is placed in the LORAN TD format mode, it simulates the operation of a LORAN receiv-

er. You can display position coordinates as TDs and use all navigation functions as if the unit was actually receiving LORAN signals.

Using the LORAN TD Format

When creating new waypoints using LORAN TD coordinates, you must set the correct LORAN chain number and secondary stations in the Chain Number field before storing the waypoint. After the waypoint is stored in unit memory, it will always reference the LORAN chain number and secondary stations currently selected. If you enter a different LORAN chain number or change the secondary stations or offsets, the active waypoint information will reflect those changes. Since the 76CS Plus does not rely on the LORAN signal for navigation, it can reference a different GRI chain and/or secondary stations and still navigate to the location stored in memory.

Open the Location Setup page and select **Loran TD** for the Position Format. You must know your GRI chain number and secondary stations to create a LORAN TD position.



APPENDIX > LORAN TD SETUP

To set up Loran TD from the Main Menu:

1. Press **MENU** twice to display the Main Menu.
2. Use the **Rocker** key to highlight **Setup** and press **ENTER**.
3. Use the **Rocker** key to highlight **Location** and press **ENTER**.
4. Highlight the **Position Format** field and press **ENTER**. From the list, highlight **Loran TD** and press **ENTER**. The page displays the Loran TD Setup, shown to the right.
5. To change the settings of any of the five fields, highlight the field, press **ENTER**, enter the desired setting using the **Rocker** key, then press **ENTER**.
6. When done, highlight the **Save** button and press **ENTER**.

If the active GRI Chain, secondary stations, or offsets have been changed since the waypoint was created, the waypoint will now reference the active GRI chain and secondary stations and adjust the TD coordinates accordingly.

Loran TD	
Chain Number	GRI_8970
Station 1	W
Offset 1	0.0
Station 2	Y
Offset 2	0.0
Save	

LORAN TD Setup

Remember that the GPS is not relying on the LORAN signal for navigation and actually converts the TD coordinate to a useful latitude and longitude coordinate before storing the waypoint to memory or using it for navigation. Because of this, the unit can navigate to a TD coordinate anywhere in the world.

For more information, read our *LORAN TD Position Format Handbook*, available at the Garmin Web site, <http://www.garmin.com/support/userManual.jsp>.





Messages

Approaching Turn: You are nearing a turn in a route.

Arriving at Destination: You are nearing your destination.

Batteries Low: Install new batteries.

Can't Unlock Maps: No applicable unlock code for one or more maps was found. All maps are not accessible.

Database Error: Internal problem with the unit. Contact your dealer or Garmin Product Support to have the unit repaired.

Deep Water: Water is deeper than the Deep Water Alarm.

Dragging Anchor: The distance set in the Anchor Drag Alarm is exceeded.

Lost Satellite Reception: Cannot receive satellite signals.

Memory Full: No further data can be saved.

Near Proximity Point: You have reached the distance set for a proximity waypoint.

No Diff GPS Location: RTCM is selected but the unit is not receiving DGPS data.

None Found: No data matched the search criteria.

No Tide Stations for that Area: No tide stations within 100 miles of the area.

Off Course: You are off course; Off Course Alarm.

Proximity Memory Full: No additional proximity waypoints can be saved.

Proximity Radius Overlaps: Two proximity points overlap.

Route Already Exists: A route already has this same name.

Route Memory Full: No additional routes can be saved.

Route Truncated: Uploaded route from another device has more than 50 waypoints.

Route Waypoint Memory Full: No additional route waypoints can be saved.

Shallow Water: The water is shallower than the depth of the Shallow Water Alarm.

Track Already Exists: A track already has this same name.

Track Log Full: The track log is full and track recording has been turned off. In order to record more track points, you will need to clear the track log and turn track recording on.

Track Memory Full: No more track data can be stored. Delete the old track data to store the new data.

Track Truncated: A complete uploaded track will not fit in memory. The oldest track log points have been deleted.

Transfer Complete: Data transfer is complete.

Waypoint Already Exists: A waypoint already has this same name.

Waypoint Memory Full: The unit has stored the maximum number of waypoints.



Data Field Options

Accuracy of GPS: The accuracy of your GPS-determined location.

Altitude: The distance above or below Mean Sea Level (MSL).

Ambient Pressure: The uncalibrated current pressure.

Battery Timer: The time remaining on the batteries before you need to replace them.

Bearing: The compass direction from your current location to a destination.

Course: The desired path of travel from your starting location to a destination.

Course to Steer: The recommended direction to steer in order to reduce cross-track error and return to the course line. Displayed as **Steer**.

Cross Track: The distance you are off a desired course in either direction, left or right.

Depth: The depth of water from sonar NMEA input.

Destination: See **Waypoint At Dest**.

Distance to Destination: The entire distance, from beginning to end, of a route.

Distance to Next: The distance to the next point on a route.

ETA at Destination: Estimated Time of Arrival. The estimated time you will reach your destination.

ETA at Next: Estimated Time of Arrival. The estimated time you will reach the next point on your route.

ETE to Destination: Estimated Time Enroute. The estimated time required to reach your destination.

ETE to Next: Estimated Time Enroute. The estimated time required to reach the next point on your route.

Max Speed: See **Speed - Maximum**.

Moving Avg: See **Speed - Moving Avg**.

Moving Time: See **Trip Time - Moving**.

Next: See **Waypoint At Next**.

Normalized Pressure: Displayed as **Nrml Press**.

Odometer: The total distance traveled since the Odometer was reset.

Overall Avg: See **Speed - Overall Avg**.

Pointer: The arrow indicating the direction to travel to the next point on a route.

Speed: Your current vehicle speed can be measured in miles per hour, kilometers per hour, or knots.

Speed - Maximum: The maximum speed the unit has moved since last reset. Displayed as **Max Speed**.

Speed - Moving Average: The average speed while moving since the Trip Computer was reset. Shown as **Moving Avg.**

Speed - Overall Avg: The total average speed traveled since the last reset of the Trip Computer. Displayed as **Overall Avg.**

Steer: See **Course to Steer.**

Stopped: See **Trip Time - Stopped.**

Sunrise: The time at which the sun rises on this day.

Sunset: The time at which the sun sets on this day.

Time in UTC: The current universal time and date.

Time of Day: The current time and date displayed in 12-hour or 24-hour format in local time.

Total Time: See **Trip Time - Total.**

Track: The direction of movement relative to a ground position. Also referred to as ground track.

Trip Odometer: The running total of distance traveled since the Trip Computer was reset

Trip Time - Moving: The length of time your vehicle has been in motion, since the Trip Computer was reset. Displayed as **Moving Time.**

Trip Time - Stopped: The length of time your vehicle has been stopped, since the Trip Computer was reset. Displayed as **Stopped.**

Trip Time - Total: The total time the unit has been tracking since the Trip Computer was reset. Displayed as **Total Time.**

Turn: The direction of, and distance to, the next turn on an active route.

User Timer: The timer you set in the Main Menu.

Velocity Made Good: The rate of closure on a destination based upon your current speed and course of travel. Displayed as **VMG.**

Vertical Speed: The rate of climb or descent.

Voltage: The direct current voltage level of an external power source.

Water Speed: The data acquired from measurement devices interfaced to the unit is used to calculate your current speed over water.

Water Temperature: The temperature of water at a measured depth using measurement devices interfaced to the unit.

Waypoint at Dest: The last point on a route, your destination. Displayed as **Destination.**

Waypoint at Next: The next waypoint in your route. Displayed as **Next.**



Safety and Product Information

Read the “Safety Information” section beginning on page 105 to learn how to properly and safely operate the 76CS Plus.

Software License Agreement

BY USING THE 76CS PLUS, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Garmin grants you a limited license to use the software embedded in this device (the “Software”) in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain with Garmin.

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret of Garmin. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

Product Registration

Help us better support you by completing our online registration today! Have the serial number of your 76CS Plus handy and connect to our Web site (www.garmin.com). Look for the Product Registration link on our Home page.

Use this area to record the serial number (8-digit number located on the back of the box) in case your 76CS Plus is lost, stolen, or needs service. Keep your original sales receipt in a safe place or attach a photocopy inside the manual.

Serial Number: _ _ _ _ _

Contact Garmin

If you should encounter any difficulty while using your GPS unit, or if you have any questions, in the U.S.A. contact Garmin Product Support by phone: 913/397.8200 or 800/800.1020, Monday–Friday, 8 AM–5 PM Central Time; or by e-mail at sales@garmin.com. In Europe, contact Garmin (Europe) Ltd. at 44/0870.8501241.





Limited Warranty

This Garmin product is warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Garmin will at its sole option repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident, or unauthorized alteration or repairs.

THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, WHICH MAY VARY FROM STATE TO STATE.

IN NO EVENT SHALL GARMIN BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE, OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations may not apply to you.

Garmin retains the exclusive right to repair or replace the unit or software or offer a full refund of the purchase price at its sole discretion. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY.

To obtain warranty service, contact your local Garmin authorized dealer or call Garmin Product Support for shipping instructions and an RMA tracking number. The unit should be securely packed with the tracking number clearly written on the outside of the package. The unit should then be sent, freight charges prepaid, to any Garmin warranty service station. A copy of the original sales receipt is required as the proof of purchase for warranty repairs.

Garmin International, Inc.
Tel. 913/397.8200 Fax. 913/397.8282

Garmin (Europe) Ltd.
Tel. 44/0870.8501241 Fax 44/0870.8501251

Online Purchases: Products sold through online auctions are not eligible for rebates or other special offers from Garmin. Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Garmin will not replace missing components from any package purchased through an online auction.





APPENDIX > SAFETY AND PRODUCT INFORMATION

International Purchases: A separate warranty is provided by international distributors for units purchased outside the United States. This warranty is provided by the local in-country distributor, and this distributor provides local service for your unit. Distributor warranties are only valid in the area of intended distribution. Units purchased in the United States or Canada must be returned to a Garmin service center in the United Kingdom, the United States, Canada, or Taiwan for service.

FCC Compliance

The 76CS Plus complies with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation and are more stringent than “outdoor” requirements.

Operation of this device is subject to the following 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 equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. 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 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.

The 76CS Plus does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment and void your warranty and your authority to operate this device under Part 15 regulations.





Safety Information

WARNING: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This Notice is being provided in accordance with California's Proposition 65. If you have any questions or would like additional information, refer to our Web site at <http://www.garmin.com/prop65>.

CAUTION: Use the 76CS Plus at your own risk. To reduce the risk of unsafe operation, carefully review and understand all aspects of this *Owner's Manual*—and thoroughly practice operation using Simulator Mode prior to actual use. When in actual use, carefully compare indications from the 76CS Plus to all available navigation sources, including information from other NAVAIDs, visual sightings, charts, etc. For safety, always resolve any discrepancies before continuing navigation.

CAUTION: IT IS THE USER'S RESPONSIBILITY TO USE THIS PRODUCT PRUDENTLY. THIS PRODUCT IS INTENDED TO BE USED ONLY AS A NAVIGATIONAL AID AND MUST NOT BE USED FOR ANY PURPOSE REQUIRING PRECISE MEASUREMENT OF DIRECTION, DISTANCE, LOCATION, OR TOPOGRAPHY. THIS PRODUCT SHOULD NOT BE USED TO DETERMINE GROUND PROXIMITY FOR AIRCRAFT NAVIGATION.

CAUTION: The electronic chart is an aid to navigation and is designed to facilitate the use of authorized government charts, not replace them. Only official government charts and notices to mariners contain all information needed for safe navigation—and, as always, the user is responsible for their prudent use.

WARNING: The Global Positioning System (GPS) is operated by the United States government, which is solely responsible for its accuracy and maintenance. The system is subject to changes which could affect the accuracy and performance of all GPS equipment. Although the Garmin 76CS Plus is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and therefore become unsafe.

MAP DATA INFORMATION: One of the goals of Garmin is to provide customers with the most complete and accurate cartography available, at a reasonable cost. We use a combination of governmental and private data sources, which we identify as required in product literature and copyright messages displayed. Virtually all data sources contain inaccurate or incomplete data to some degree. This is particularly true outside the United States, where complete and accurate digital data is either not available or prohibitively expensive.





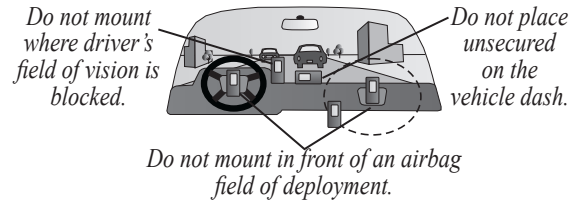
APPENDIX > SAFETY AND PRODUCT INFORMATION

Because the Garmin 76CS Plus can be used for vehicular navigation, important safety considerations must be followed. Read and observe the following instructions.

WARNING: For use in vehicles, it is the sole responsibility of the owner/operator of a vehicle to place and secure the 76CS Plus so it will not interfere with the vehicle operating controls and safety devices, obstruct the driver's view of driving conditions, or cause or personal injury in the event of an accident.

Do not mount the unit over airbag panels or in the field of airbag deployment. Airbags expand with a rapid force that can propel objects in their path towards the driver or passengers, causing possible injury. Refer to airbag safety precautions in the vehicle owner's manual.

Do not mount the unit in a place where the driver or passengers are likely to impact it in a collision. The mounting hardware provided by Garmin is not warranted against collision damage or the consequences thereof.



WARNING: When used in vehicles, it is the sole responsibility of the driver of the vehicle to operate the vehicle in a safe manner, maintain full surveillance of all driving conditions at all times, and not become distracted by the unit to the exclusion of safe driving practices. It is unsafe to operate the controls of the unit while you are driving. The driver of a vehicle equipped with a 76CS Plus must pay full attention to operation of the vehicle and road conditions while the vehicle is in motion. Failure to pay full attention could result in an accident with property damage and personal injury.





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