GPSMAP 2006/2010

chartplotters

(GPSMAP 2006C and 2010C shown)

owner's manual and reference guide

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Preface

Congratulations on choosing one of the most advanced marine navigation systems available! The GARMIN GPSMAP 2006/2006C/2010/2010C utilizes the proven performance of GARMIN GPS and full featured mapping to create an unsurpassed marine navigation chartplotter.

To get the most out of your new navigation system, take the time to go through this operator's manual and learn the operating procedures for your unit. This manual covers both the monochrome and color models of the GPSMAP 2006 and 2010. This manual is broken down into two sections for your convenience.

Section One introduces you to the GPSMAP 2006/2010 and provides a Getting Started tour so that you may become more familiar with the unit. This section will provide you with a basic working knowledge necessary to use the unit to its fullest potential.

Section Two is divided into sections that provide detailed references to the advanced features of the GPSMAP 2006/2010. This allows you to concentrate on a specific topic quickly and can be used to look up detailed information about the GPSMAP 2006/2010.

Software License Agreement

BY USING THE GPSMAP 2006/2010, 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 in 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.

GARMIN's Customer Service Department can be reached Monday-Friday 8am to 5pm Central Standard Time.

By phone at— ***1-800-800-1020***

By email at— ***sales@garmin.com***

Check the Garmin Web Site (www.garmin.com) for links to Product Support and Product FAQ's

Customer Service Product Registration

Have the external serial number of your GPSMAP 2006/2010 handy and connect to our website (www.garmin.com). Look for the Product Registration link on the Home page. Also, be sure to record your serial number in the area provided on page iii of this manual.

MAP DATA INFORMATION: One of the goals of GARMIN is to provide customers with the most complete and accurate cartography that is available to us 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 to the consumer. 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.

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.

The GPS system 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 GPSMAP 2006/2010 is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and, therefore, become unsafe.

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.

Use the GPSMAP 2006/2010 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 the simulator mode prior to actual use. When in actual use, carefully compare indications from the GPSMAP 2006/2010 to all available navigation sources, including the information from other NAVAIDs, visual sightings, charts, etc. For safety, always resolve any discrepancies before continuing navigation.

FCC Compliance

The GPSMAP 2006/2010 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 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, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by reorienting or relocating the receiving antenna, increasing the separation between the equipment and receiver and/or connecting 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 GPS GPSMAP 2006/2010 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.

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.

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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 Customer Service at one of the numbers shown below, 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.

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Serial Number

Use this area to record the serial number (10-digit number located in the back of the unit) in case it is lost, stolen, or needs service. Be sure to keep your original sales receipt in a safe place or attach a photocopy inside the manual.

Serial Number:

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The GARMIN GPSMAP 2006/2010 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 GPSMAP 2006/2010 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.

Designed for detailed electronic charting capability, the GARMIN GPSMAP 2006/2010 are powerful navigation devices that can give you the navigation information you need:

Precision Performance

- The GPSMAP 2006/2010 features a high-contrast, ten level gray, 640 x 480 LCD display with adjustable contrast and backlighting.
- The GPSMAP 2006C/2010C features a high resolution, 256 color, 640 x 480 color LCD display with adjustable brightness.
- GPS 17N: 12-channel parallel receiver tracks and uses up to 12 satellites for fast, accurate positioning
- DGPS; USCG and WAAS capable
- Fully gasketed, high-impact plastic alloy case, waterproof to IEC 529-IPX-7

Advanced Navigating and Plotting

- 3000 alphanumeric waypoints with selectable icons and comments
- Built-in worldwide basemap includes detailed ocean, river and lake coastlines, cities, U.S. interstates, state highways and built-in tide information from over 3,000 tide stations around the USA coastline, Alaska, Hawaii, western Canada and several Caribbean Islands.
- 50 reversible routes with up to 50 waypoints each
- Enhanced mapping with an additional data card and GARMIN's BlueChart or MapSource PC products
- Coordinates: Lat/Lon, UTM/UPS, Loran TD, plus sixteen grids, including Maidenhead
- TracBack route feature which allows you to quickly retrace your track log to a starting position
- Built-in simulator mode

"How To" Index

The list to the right is provided to help you quickly find some of the more important procedures you will use on your new GPSMAP 2006/2010.


Data Card Slots
Function Keys
Mounting Knobs
Simulating Navigation
Soft Keys
Data Entry Keys
Power/Data Cable Port
Data Port
for future use

Function Keys

The **IN** Key — adjusts the map scale to show a smaller area with more detail. (Zooms in)

The **OUT** Key — adjusts the map scale to show a larger area with less detail. (Zooms out)

The **PAGE** Key — cycles the unit through the main display pages in sequence and returns the display from a submenu page.

The **QUIT** Key — cycles the unit through the main display pages in a reverse sequence, restores the previous value in a data entry field, or cancels an unintended function such as a GOTO.

The **ENTER/MARK** Key — selects a highlighted menu option. When entering data, it allows you to initiate entry, and then to accept the selected value(s). It also marks the current location as a waypoint when pressed and held for more than one second.

The **MENU** Key — displays the Main Menu.

The **NAV** Key — displays a selection list allowing the user to select a navigation option.

The **FIND** Key — allows you to quickly access User Waypoints, and other items used for navigation.

The **MOB** Key — immediately stores the location and gives the option of setting direct navigation.

The **POWER ( )** Key — is used to turn the unit on and off and to activate the backlight.

The **ARROW KEYPAD ( )** — is used to select (highlight) menu options and enter data. It controls the Left/Right and Up/Down movement of the cursor.

Data Entry Keys

The Data Entry Keys are used when entering alpha-numeric data in the unit, such as a waypoint name. The Data Entry Keys can be used in conjunction with the **ARROW KEYPAD**. To select the first letter press the key once, to select the second letter press the key twice, to select the third letter press the key three times, or to select the number press the key four times. When you have correct letter or number selected, pause and the unit will advance the cursor to the next character automatically.

Soft Keys

The Soft Keys are located along the bottom of the display and are used to select options for the page that is displayed. To select an option, press the Soft Key below it.

2006/2010 Basic Operation

Before moving ahead to the features of the GPSMAP 2006/2010, you will need to learn basic operations. Many times throughout this manual you will be prompted to press a key. When instructed, press, then release the key. If the key needs to be held down, the instructions will prompt you.

Turning the GPSMAP 2006/2010 ON:

1. Press the **POWER (⏻)** key.

As the unit powers on, a Warning Page is displayed. After reading the Warning Page, press the **ENTER/MARK** key to display the GPS Info on power-up window. (This window will be covered at the end of the Getting Started section.) Press the **ENTER/MARK** key to continue to the Map Page.

Adjusting the Contrast and Backlight

The 2006/2010 monochrome versions have adjustments for the Contrast and Backlighting, the color versions do not have a Contrast adjustment.

Adjusting the Contrast on Monochrome Units:

1. Press the **POWER (⏻)** key to display the Contrast/Backlight Adjustment Window.
2. Press the **ARROW KEYPAD** left to decrease (lighten) the Contrast
3. Press the **ARROW KEYPAD** right to increase (darken) the Contrast.

The Backlight can be turned off for operation in sunlight or increased in steps to produce the right lighting for the situation.

Activating the Backlight:

1. Press the **POWER (⏻)** key to activate the Backlight Adjustment Window.
2. To increase the backlighting, press the **ARROW KEYPAD** up.
3. To decrease the backlighting, press the **ARROW KEYPAD** down.

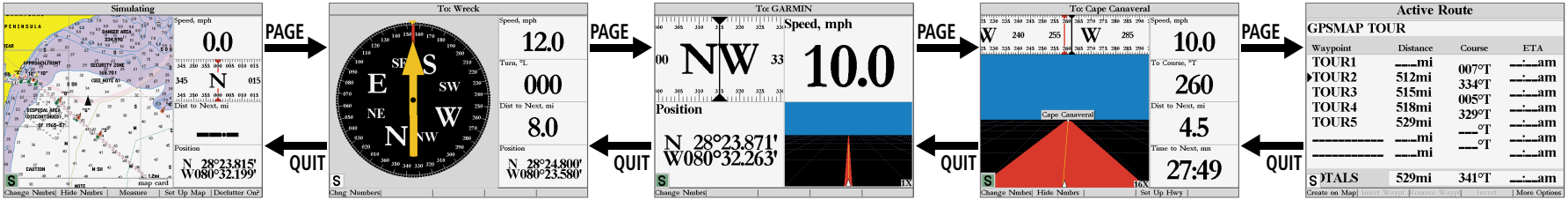
*TIP: After the Backlight Adjustment Window is activated, pressing the **POWER** key repeatedly will cycle through the backlight settings three steps.*

Contrast Adjustment on Monochrome Units Only

First let's take a look at the Main Display Pages as they come from the factory. There are five pages: the Map Page, Compass Page, Numbers Page, Highway Page and the Active Route Page. When the unit is turned on the first Main Page displayed is the Map Page.

To scroll through the Main Display Pages:

1. Press the **PAGE** key. Each time the **PAGE** key is pressed the GPSMAP 2006/2010 will display the next Main Page.
2. The **QUIT** key acts like the **PAGE** key in reverse. Each time the **QUIT** key is pressed, the next Main Page will be displayed in a reverse sequence.



Map Page *Compass Page* *Numbers Page* *Highway Page* *Active Route Page*

While learning the basic operation of the GPSMAP 2006/2010, let's put the unit into its Simulator Mode. The Simulator Mode is great for practicing with the unit. When the unit is in Simulator Mode, it will not accept GPS input, but will simulate satellite navigation. When in the Simulator Mode, the GPSMAP 2006/2010 CAN NOT be used for actual navigation.

NOTE: Do not try to navigate while using the Simulator Mode. When the GPSMAP 2006/2010 is using the built-in simulator, the unit is not accepting GPS input. The unit will, however, simulate actual satellite navigation.

Activating the Simulator Mode:

1. Press the **MENU** key.
2. With the 'GPS Info' tab displayed, at the lower left of the display will be a **SOFT KEY** label 'Start Simulator', press the **SOFT KEY** that corresponds with this option. Choose 'No' to the retail demonstration and press **ENTER/MARK**.
3. The "Simulator Setup" window will be displayed.

There are six parameters that can be set for the simulator: "Current Time", "Current Date", "Track Control", "Track", "Speed", and "Set Position" (SOFT KEY). We need to change the "Current Time" and "Current Date" settings.

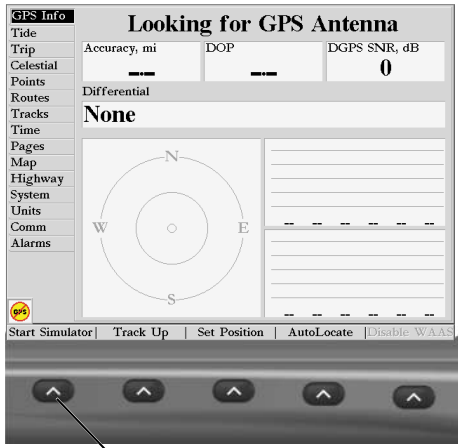
There are two methods that you can use when entering alpha-numeric data, one is the **ARROW KEYPAD** and the other is the **DATA ENTRY** keys. We will use the **ARROW KEYPAD** for setting the Current Time and Current Date. See page 7 for instructions using the **DATA ENTRY** keys.

Current Time:

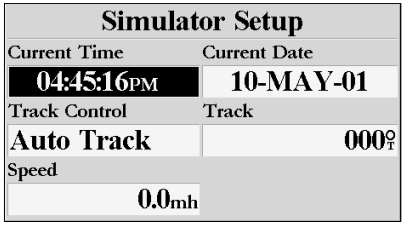
1. Using the **ARROW KEYPAD**, highlight the "Current Time" field and press the **ENTER/MARK** key.
2. Using the Right/Left function of the **ARROW KEYPAD**, place the highlight on the correct digit to begin entering the current time.
3. Using the Up/Down function of the **ARROW KEYPAD**, scroll through the list until the correct number is displayed. Press the **ARROW KEYPAD** to the right to highlight the next digit.
4. Continue this process until the correct "Current Time" is displayed then press the **ENTER/MARK** key to accept the new time.

Current Date:

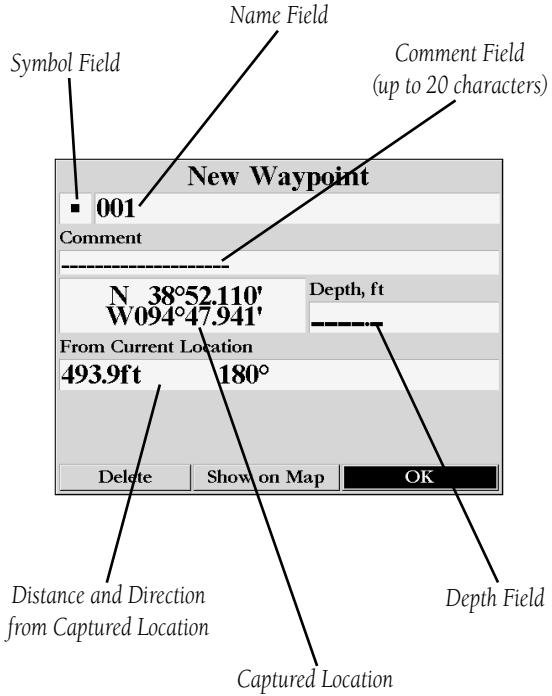
1. Using the **ARROW KEYPAD**, highlight the "Current Date" field and press the **ENTER/MARK** key.
2. Using the Right/Left function of the **ARROW KEYPAD**, place the highlight on the correct digit to begin entering the Current Date.
3. Using the Up/Down function of the **ARROW KEYPAD**, scroll through the list until the correct number is displayed. Press the **ARROW KEYPAD** to the right to highlight the next digit.
4. When the month is highlighted the Up/Down function of the **ARROW KEYPAD** will scroll through a list of the months. Select the current month then move to the next digit.
5. Continue entering the date, when finished, press the **ENTER/MARK** key to accept the new date.



*Select this **SOFT KEY** to start the Simulator*



*After the 'Start Simulator' **SOFT KEY** has been pressed, the "Simulator Setup" window will be displayed. Set the current time and date, and change the "Track Control" to 'User Track'. When finished press the **QUIT** key to begin simulation.*



The Simulator is now set up and ready to use!

Let's review what we have covered so far:

1. The **PAGE** and **QUIT** key will cycle through the Main Pages, the **PAGE** key in a forward direction and the **QUIT** key in reverse.
2. To select a field or option use the Right/Left and Up/Down functions of the **ARROW KEYPAD** to control the cursor or highlight.
3. To activate a field or option, place the highlight over the item and press **ENTER/MARK**.
4. Use the **ARROW KEYPAD** to scroll through alpha-numeric character lists when entering data.

Creating Waypoints

There will be many times that you will need to enter data in the GPSMAP 2006/2010, an example is naming a waypoint. We have already taken a brief look at entering data, but let's practice some more.

Through this exercise we will create a new waypoint, name the waypoint, and assign a symbol to the waypoint. The term "Waypoint" may be new to you. You will find the term "Waypoint" is used frequently when talking about navigation. A "Waypoint" is a position stored in the unit's memory, that can be used for navigation. Waypoints are used for direct navigation, or you can use several waypoints to build a route.

Creating, "Marking" a waypoint in the 2006/2010 is really very easy. The unit has to be turned on and receiving at least three satellite signals or in Simulator Mode to mark a waypoint.

Marking your present position as a Waypoint:

1. Press and hold the **ENTER/MARK** key (more than 1 second) until the 'New Waypoint' window is displayed.

When you hold the **ENTER/MARK** key, the GPSMAP 2006/2010 captures its current location and displays the 'New Waypoint' window. You can see that the unit assigned a square as the default symbol and a number as the default name. The 'OK' button is highlighted, pressing the **ENTER/MARK** key will store the new waypoint using the default settings for the symbol and name, but let's change them for practice.

Changing the symbol:

1. Using the **ARROW KEYPAD**, highlight the symbol field, then press the **ENTER/MARK** key. This will display a list showing all of the available symbols.

2. Using the **ARROW KEYPAD**, highlight the 'Information' symbol and then press the **ENTER/MARK** key.

We will enter a new waypoint name using the **DATA ENTRY** keys. Each **DATA ENTRY** key has multiple characters assigned to it. Pressing the key one time will select the first character, twice will select the second character, three times the third character, and four times will select the number assigned to the key. The only **DATA ENTRY** key that does not have four characters is the "+, -, 0" key.

When entering data using the **DATA ENTRY** keys, press the key repeatedly until the correct character is selected, then pause briefly or press the next letter/number from a different key. The unit will automatically move the cursor to the next placeholder.

Changing the name:

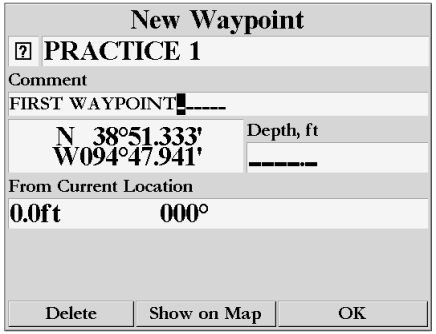
1. Using the **ARROW KEYPAD**, highlight the Name field and then press the **ENTER/MARK** key. This will activate the field with the highlight on the first placeholder.
2. Press the **ARROW KEYPAD** to the left to clear the field.
3. We will name this waypoint "PRACTICE 1", press the **DATA ENTRY** key labeled "P, Q, R, 6" one time to set the letter "P". (If you are entering a letter/number from the same key, pause briefly and the unit will move to the next placeholder automatically. Otherwise, press the next letter/number from a different key.)
4. Press the same key three times to set the letter "R". Continue entering the name until "PRACTICE" is spelled.
5. To move the cursor to the right one space, press the **ARROW KEYPAD** to the right one time.
6. Finish the waypoint name by selecting the number "1".
7. Press the **ENTER/MARK** key to accept the new name.

Directly below the Name field is a Comment Field. You can enter a comment of up to twenty digits about the waypoint in this field. For some more practice, enter "First Waypoint" in the comment field.

Entering a Comment:

1. Highlight the 'Comment' field and press the **ENTER/MARK** key.
2. Using the **ARROW KEYPAD** and **DATA ENTRY** keys, enter "FIRST WAYPOINT".
3. Press the **ENTER/MARK** key to accept the comment.

DATA ENTRY keys



Select the 'Information' symbol, enter the name "Practice 1", and enter the comment "First Waypoint".

*The **SOFT KEYS** are located under the display on the front of the unit. The **SOFT KEYS** are used to change display options and show menus for the Main Page that is currently displayed.*

*Labels showing the function of the **SOFT KEYS** are located along the bottom of the display. To select the function, press the **SOFT KEY** located directly below it.*

Now that you have finished modifying the waypoint you will need to save it to the Waypoint List.

To Save the Waypoint:

1. Using the **ARROW KEYPAD**, highlight the 'OK' button at the bottom of the "New Waypoint" window.
2. Press the **ENTER/MARK** key to save the waypoint.

Data Entry Tips:

1. Remember that you can use both the **ARROW KEYPAD** and **DATA ENTRY** keys to enter data.
2. When using the **ARROW KEYPAD**, if you press and hold the key, the unit will scroll through the alpha-numeric list quickly.
3. When using the **DATA ENTRY** keys, press the key the appropriate number of times for the character that you want to display. The number is always last.

Soft Keys

The **SOFT KEYS** are located along the bottom of the unit under the display. The **SOFT KEYS** are used to perform functions or display menus specific to the page that is displayed. The labels showing the function of each key are along the bottom of the display just above the corresponding **SOFT KEY**. To perform the listed function press the **SOFT KEY**. If the function in the label is "Grayed Out", that function is not currently available.

Press the **PAGE** or **QUIT** key until the Map Page is displayed. To see how the **SOFT KEYS** work we will hide and show the 'Numbers' Fields located along the right side of the screen and display the Map Setup Menu.

To Hide the Numbers:

1. Press the **SOFT KEY** located below 'Hide Nmbrs' at the bottom of the display.

You should now have a map that covers the entire display from left to right. Now let's redisplay the 'Numbers'.

To Display the Numbers:

1. Press the **SOFT KEY** located below 'Show Nmbrs' at the bottom of the display.

To Display the Map Setup Menu:

1. Press the **SOFT KEY** located below the 'Set Up Map' tag located at the bottom of the display.

The Map Setup Page Menu will be displayed. The Map Setup Page will be discussed in detail in the Reference Section of this manual. Now let's return to the Map Page.

To Return to the Map Page:

1. Press the **QUIT** key.

Remember that **SOFT KEYS** are used to quickly access options or functions for the Main Page that is displayed. The options or functions assigned to a **SOFT KEY** may be different for every page that is displayed.

Basic Navigation

The main use of a GPS is to be able to navigate to a known position. We have already created a waypoint using the **ENTER/MARK** key, let's create another waypoint using the Map Pointer, and then begin navigation to that point.

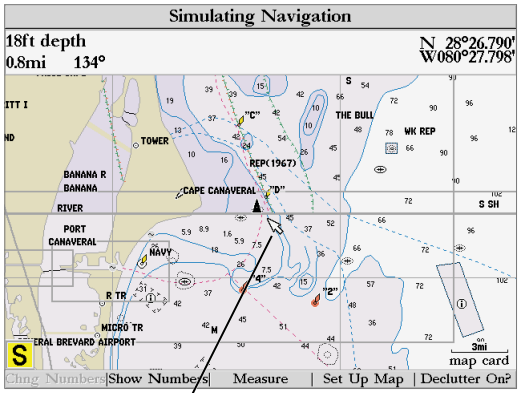
Press the **PAGE** key until the Map Page is displayed. Press the **IN** key several times until the Map Scale located at the bottom right of the display reads "2 nm". This will "Zoom In" on the map showing a smaller area in more detail.

The **ARROW KEYPAD** controls the Map Pointer. The Map Pointer originates from the current GPS location, represented by the triangle in the middle of the display.

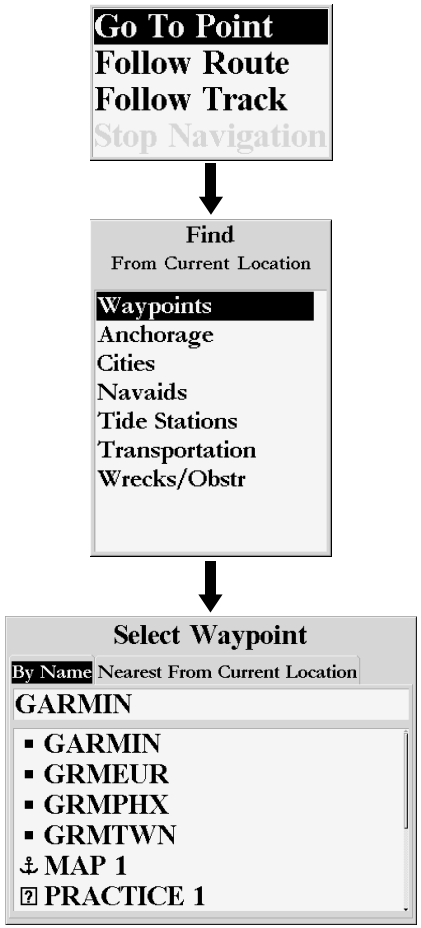
To Display the Map Pointer:

1. Press the **ARROW KEYPAD** in any direction.

Using the **ARROW KEYPAD** you can move the Map Pointer around the map. As you move the Map Pointer around the map, the direction and distance of the Map Pointer from the current GPS location will be displayed in the information bar along the top of the display. Move the Map Pointer until it is approximately two miles from the current GPS location.



Map Pointer



To Create a Waypoint Using the Map Pointer:

1. With the Map Pointer at the desired location (not on a road or map feature), quickly press and release the **ENTER/MARK** key. (Holding the ENTER/MARK key for more than one second will mark your present location. See pg. 6) The "New Map Waypoint" Page will be displayed.

Change the waypoint name to "MAP 1", and assign the 'Information' symbol. Save the waypoint by highlighting the 'OK' button and pressing the **ENTER/MARK** key. Press the **QUIT** key to hide the Map Pointer and center the display on the current GPS location.

Navigating to a waypoint

When you begin navigation to a waypoint, the GPS sets a straight line course to that point. The unit will draw a Course Line on the display between the current GPS location and the destination waypoint. You may use any of the main pages for navigation. All of these pages are discussed in detail in the Reference section of this manual. For this exercise, let's use the Highway Page.

Going to a waypoint:

1. Press the **NAV** key.
2. Highlight 'Go To Point' and press the **ENTER/MARK** key.
3. Highlight 'Waypoints' and press the **ENTER/MARK** key. This will display the 'Select Waypoint' window. From this window you can select waypoints "By Name", or by "Nearest From Current Location". Select the tab 'By Name' using the **ARROW KEYPAD**.
4. Using the **ARROW KEYPAD**, scroll through the list until the waypoint "Map 1" is highlighted. Press the **ENTER/MARK** key to display the "Waypoint Review" Page.
5. With the 'Go To' button highlighted, press the **ENTER/MARK** key to begin navigation.

For a GPS to navigate it has to be moving. When the Compass Page or Highway Page is displayed and the unit is in the Simulator Mode, you can set a simulated speed by pressing the **ARROW KEYPAD** 'Up'. Each time the **ARROW KEYPAD** is pressed 'Up' the simulated speed will increase by ten knots. Pressing the **ARROW KEYPAD** 'Down', will decrease the simulated speed by the same amount.

Press the **PAGE** key until the Compass Page is displayed. Along the right side of the display there are four data fields, the top field is the Speed. Press the **ARROW KEYPAD** 'Up' one time to set a speed of 10 knots.

Using the Compass Page

Located on the Compass Page are the Bearing Pointer, and a Compass Ring. When you are moving, the Bearing Pointer points toward your destination, while the Compass Ring reflects the direction that you are traveling. In short, when you are headed directly toward your destination, the Bearing Pointer will point toward the top of the display, aligned with the vertical line displayed in the Compass Ring. If you are not heading toward your destination, the Bearing Pointer will turn, continuing to point toward your destination. To head toward your destination, turn until the Bearing Pointer is realigned with the vertical line in the Compass Ring.

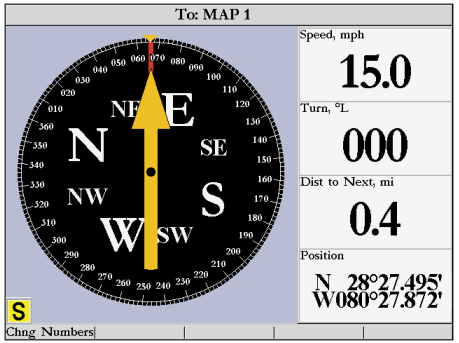
The GPSMAP 2006/2010 will allow you to simulate a turn so you can see what will happen.

To simulate a turn:

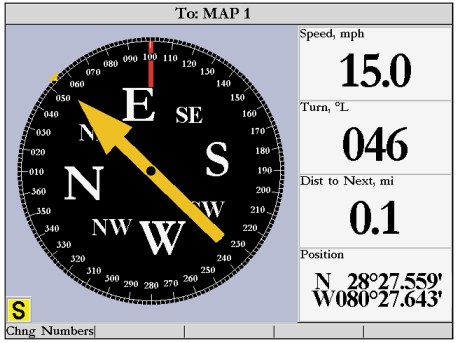
1. Press the **ARROW KEYPAD** to the right until the Compass Ring has changed about 40°.

The Bearing Pointer should now be pointing to the left. This is exactly what will happen during actual navigation. To get back on course, press the **ARROW KEYPAD** to the left, simulating a left turn. When the Bearing Pointer is aligned with the vertical line in the Compass Ring, you are headed directly toward the destination waypoint.

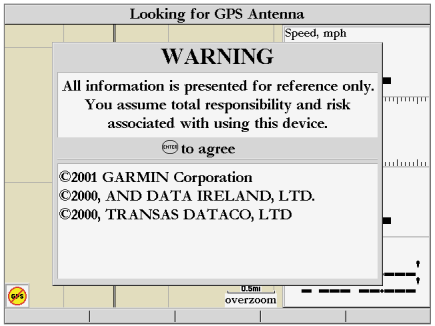
Congratulations you should now have enough experience to use the basic functions of your GPSMAP 2006/2010. Enjoy your new GPSMAP 2006/2010 and thank you for choosing GARMIN.



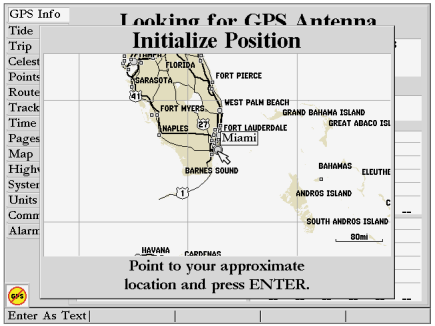
Compass Page — Heading directly toward the destination waypoint. When the Bearing Pointer is aligned with the vertical line in the Compass Ring then you are on a direct course to your destination.



Compass Page — showing off course about 40°. Turn left until the Bearing Pointer is aligned with the vertical line to get back on course.



Warning page



Point to your approximate location and press ENTER/MARK.

Initializing the Receiver

The first time you power up your new GPSMAP 2006/2010 and GPS 17N receiver, the receiver must be given an opportunity to collect satellite data and establish its present position. To ensure proper initialization, the GPS 17N is shipped from the factory in AutoLocate mode, which will allow the receiver to "find itself" anywhere in the world. To speed up the initialization process, we recommend using the graphic initialization process, which will usually provide a position fix within a few minutes. If you know your approximate coordinates, you may also enter the position as text.

Before you initialize, make sure the GPSMAP 2006/2010 unit and GPS 17N antenna have been correctly installed on your vessel according to the instructions in the 2006/2010 Installation Guide. The antenna needs a clear and unobstructed view of the sky to receive satellite signals.

To turn the GPSMAP 2006/2010 on:

1. Press and hold the **POWER** key until the display comes on, then release the **POWER** key.

A warning page will appear, asking you to read and acknowledge important information regarding the proper use of the unit.

To acknowledge the warning:

1. After reading the warning, press the **ENTER/MARK** key if you agree.

Next you will see the GPS Info window which provides a visual reference of satellite acquisition, GPS receiver status, and accuracy. The status information will give you an idea of what the GPS receiver is doing at any given moment.

To graphically initialize the GPSMAP 2006/2010:

1. From the GPS Info window, press the 'Set Position' **SOFT KEY**.
2. The Initialize Position Page will appear, prompting you to select your approximate location with the map cursor. Use the **ARROW KEYPAD** to move the map cursor and point to your approximate location within 200 miles. If you have difficulty identifying your position, press and release the **IN** key to zoom in to view the map at the next lower scale.
3. Once you have determined your approximate location on the map, press the **ENTER/MARK** key.

4. If you wish to enter your approximate location as text, from the Initialize Position Page, press the 'Enter As Text' **SOFT KEY** then use the **DATA ENTRY** keys to enter the coordinates and press **ENTER/MARK** when done.

This does not "calibrate" the unit in any way, but rather helps to speed up the initial satellite acquisition. If the unit displays "Ready (2D) or (3D)" during this process, it is not necessary to initialize the unit.

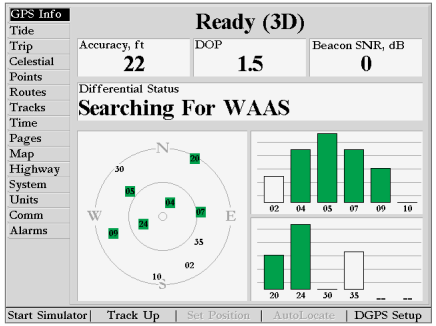
The GPSMAP 2006/2010 will now begin searching for the appropriate satellites for your region and should acquire a fix within a few minutes. When viewing the GPS Info, a signal strength bar for each satellite in view will appear on the bottom of the page, with the appropriate satellite number under each bar. The progress of satellite acquisition is shown in three stages:

- No signal strength bars— the receiver is looking for the satellites indicated.
- Hollow signal strength bars— the receiver has found the indicated satellite(s) and is collecting data.
- Solid signal strength bars (green on color models)— the receiver has collected the necessary data and the satellite(s) are ready for use.

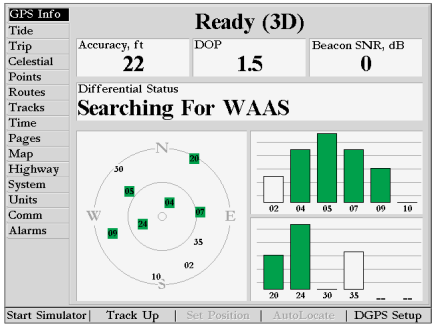
Once the receiver has collected information from at least three satellites, the top of the screen will display either "Ready (2D or 3D)", the GPS Info window will automatically disappear and the display will switch to the Map Page showing your current position. The GPSMAP 2006/2010 is now ready for use!

The GPS Info may also be accessed from the Main Menu once the unit is ready to navigate. For more detailed information on the GPS Info tab and its related options, see pages 46-49. The GPS Info on power-up window may also be turned off in order to go directly to the first Main Page using the Pages tab options (pg. 55).

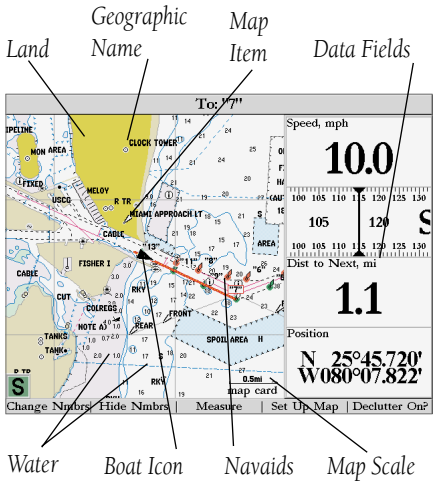
Since the 2006/2010 can receive position information from a non-GARMIN NMEA source, it is possible to have a '"Ready (2D) or (3D)" status with no satellite data.



A satellite's strength bars will turn black (or green) when it's ready for use.



The GPS Info screen and additional options may also be accessed from the Main Menu after the unit has acquired satellites.



Map Page shown using optional BlueChart data.

Map Page

The GPSMAP 2006/2010's Map Page provides a comprehensive display of electronic cartography, plotting and navigational data. When using the unit with the optional BlueChart data or MapSource software, the map display shows your boat on a digital chart, complete with geographic names, map items, navaids and a host of other chart features. Additional information on BlueChart data may be found in the "BlueChart User's Guide". It also plots your track and displays any routes and waypoints you create. An on-screen cursor lets you pan and scroll to other map areas, determine the distance and bearing to a position, and perform various route and waypoint functions.

When the cursor is active, an additional data window will appear above the map to indicate the position, any identifying text, range and bearing to the cursor or a selected waypoint or map item. The map scale displays at the bottom right of the map.

The **IN** and **OUT** keys, combined with the **ARROW KEYPAD**, let you select zoom ranges and move the cursor. Two basic map operating modes, position mode and cursor mode, determine what cartography is shown on the map display. Position mode pans the cartography to keep the present position marker within the display area, while cursor mode pans the cartography to keep the cursor within the display area.

The GPSMAP 2006/2010 system will always power up in the position mode, with your vessel centered on the map display. When sufficient map coverage is not available to keep the boat centered, the boat icon will move toward the edge of the display.

When the **ARROW KEYPAD** is pressed, the GPSMAP 2006/2010 will enter cursor mode. In cursor mode:

- The cursor can be moved over the map display using the **ARROW KEYPAD**.
- Whenever the cursor reaches the edge of the display, the map will scroll forward under the cursor. Keep in mind that the boat icon will move with the map scrolling and may go off the display screen (you may not be able to see your present position).
- When the cursor is stationary, a fixed coordinate position will appear in the position field. Note that the distance and bearing will change as the boat's position changes.
- Whenever you zoom in cursor mode, the cursor will be centered on screen.
- To return to position mode, press the **QUIT** key.

When the cursor reaches the edge of the map, the unit may pause as it loads new map data.

Using the Cursor

The cursor allows you to pan away from your present position and scroll to other map areas around the world (even outside of your current detail coverage). As you pan past the edge of the current map display, the screen will actively scroll forward to provide continuous map coverage. You will see an hourglass symbol by the pointer while the unit is busy drawing new map detail.

To move the cursor:

1. Press the **ARROW KEYPAD** to move the cursor in an up, down, left or right direction.

As you move the cursor, the distance and bearing from your present position to the cursor will be displayed in the data window, along with the cursor's position coordinates. Keep in mind that when the cursor is stationary, the distance and bearing from your present position will change as your boat moves. The cursor may also be used to 'snap' to on-screen waypoints and map items, allowing you to review a selected position directly from the map display.

To select an on-screen waypoint or map item with the cursor:

1. Use the **ARROW KEYPAD** to move the cursor to the desired waypoint or map item (if there are several waypoints grouped closely together, zoom in closer for a better view).
2. When a waypoint or map item is selected, it will become highlighted on screen, with the name and position displayed. Press **ENTER/MARK** to show details of the map item. When using BlueChart or MapSource data, additional information tabs will appear. Use the **ARROW KEYPAD** to highlight the individual tabs to display the information and additional options. Use the **SOFT KEY** options to Scroll Up, Down, Left or Right when necessary.

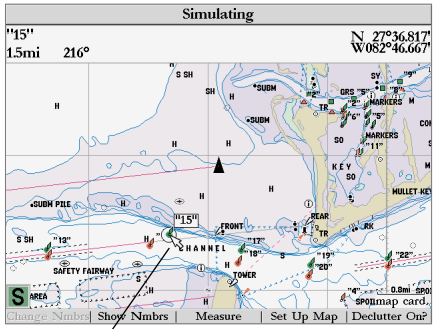
To eliminate the cursor and re-center your position on-screen:

1. Press the **QUIT** key.

The cursor may also be used to create new waypoints directly from the map.

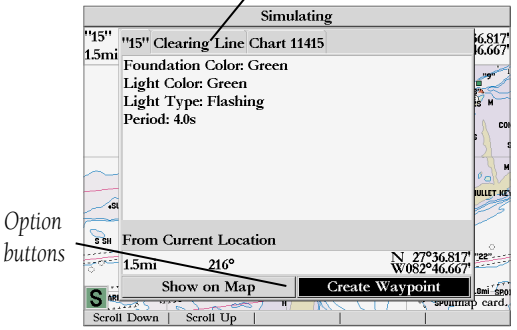
To create a waypoint with the cursor:

1. Use the **ARROW KEYPAD** to move the cursor to the desired map position. (continued)



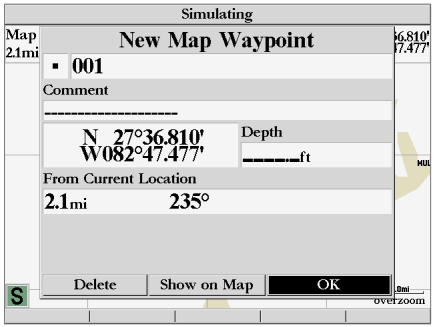
Move the cursor over an item on the map to highlight it.

Additional information tabs.

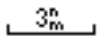


Option buttons

Pressing ENTER/MARK while highlighting a map item will bring up additional details and options.



Creating New Map Waypoint



Using Built-In Basemap

Using BlueChart/MapSource Data

Overzoom, no additional data

2. Press the **ENTER/MARK** key and the 'New Map Waypoint' window will appear. If the cursor is on a map item, you will get a new window with details about the item when **ENTER/MARK** is pressed. Press **ENTER/MARK** again on the highlighted 'Create Waypoint' option.
3. Highlight 'OK' and press **ENTER/MARK** to confirm the new waypoint using the default three-digit name and symbol. To change any of the available data fields, see page 27.

Selecting Map Scales

The map display has 28 available range scales from 20 ft. to 800 mi. (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. The scale value represents the distance from one end of the scale bar to the other.

To select a map scale:

1. Press the **OUT** key to zoom out and the **IN** key to zoom in.

The GPSMAP 2006/2010's system has a built-in worldwide database to 20 mi, with more detailed coverage available through the use of the optional BlueChart or MapSource data. The GPSMAP 2006/2010 will display cartography as long as there is chart information available for the range you've selected. Map coverage will conform to the following conditions:

- When the selected zoom range is covered by either the internal database, BlueChart, or MapSource data, cartography will be displayed.
- When the selected zoom range is covered by both the internal database and BlueChart/MapSource data, cartography will be displayed using the data with the best resolution.
- When the selected zoom range exceeds the resolution of the data in use, overzoom cartography will be displayed and an 'overzoom' warning will appear below the scale field.

Map Page Options

Many features of the GPSMAP 2006/2010 are **SOFT KEY** driven. Each of the main pages have **SOFT KEY** options, allowing you to custom tailor the corresponding page to your preferences and/or select special features that specifically relate to that page. The data window, located at the right of the main pages (except Active Route Page) provides a user-selectable layout of various types of useful data. Each data field may be configured to display any one of several data options. The data window layout may also be changed to display additional data fields and change the actual size of the data displayed.

The GPSMAP 2006/2010's Map Page provides access to functions and features relating to the Map Page and the layout options.

The available **SOFT KEY** options are Change Nmbrs, Hide Nmbrs/Show Nmbrs, Measure, Set Up Map, and Declutter On/Off. Following are details on using each of these options.

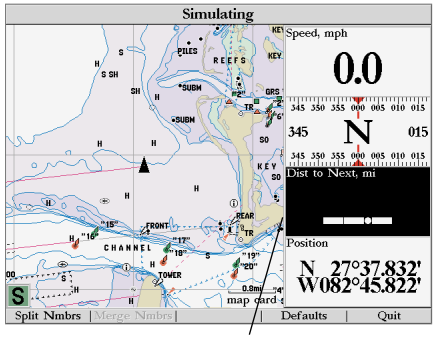
• **Change Nmbrs (Numbers) —** allows you to specify the type of data displayed in each number field used on the map display. This option is available from any of the main pages.

To change a number field:

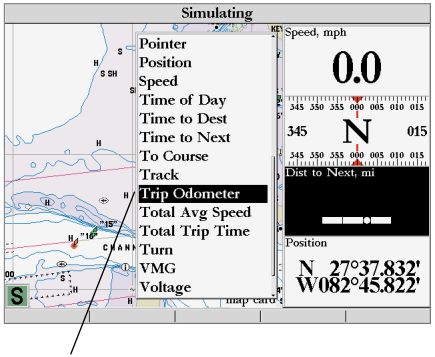
1. Press the 'Change Nmbrs' **SOFT KEY**.
2. Move the field highlight to the data field you want to change and press **ENTER/MARK**.
3. Move up or down on the list using the **ARROW KEYPAD** to highlight the data you want to display, and press **ENTER/MARK**. To exit, press **QUIT** or the 'Quit' **SOFT KEY**.

The following data options are available for data fields on the main pages:

- BEARING – Compass direction from your position to destination
- COMPASS – Compass ribbon
- COURSE – Desired Track
- DEPTH – Depth below transducer (if receiving proper sonar data from other device)
- DISTANCE TO DEST – Distance to final waypoint
- DISTANCE TO NEXT – Distance to next waypoint
- ELEVATION – Elevation above/below MSL (Mean Sea Level)
- ETA AT DEST – Estimated Time of Arrival to final waypoint
- ETA AT NEXT – Estimated Time of Arrival to next waypoint
- GPS ACCURACY – Current accuracy of GPS receiver
- HIGHWAY – Smaller version of the Highway Page
- MAX SPEED – Fastest speed the unit has traveled
- MOVING AVG SPEED – Average moving speed
- MOVING TIME – Time unit has been moving for a trip
- OFF COURSE – Distance from desired track
- POINTER – Arrow points to your destination
- POSITION – Current position coordinates
- SPEED – Speed over ground
- TIME OF DAY – Current time

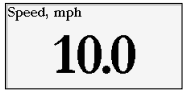


Highlight the field you wish to change.

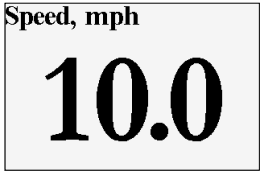


Choose the type of data you wish to display.

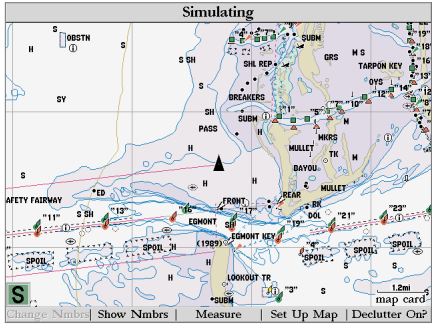
Split, small fields



Default, medium fields



Single, large data field



Full screen map shown (with BlueChart data)

- TIME TO DEST – Time to final waypoint
- TIME TO NEXT – Time to next waypoint
- TO COURSE – Distance to desired track
- TOTAL AVG SPEED – Total average speed
- TOTAL TRIP TIME – Total travel time of trip, stopped and moving
- TRACK – Current compass direction of travel
- TRIP ODOMETER – Trip Odometer
- TURN – Directional amount of turn needed to match bearing
- VELOCITY MADE GOOD – Velocity Made Good to destination
- VOLTAGE – Current voltage reading being received by unit
- WATER SPEED – Speed through the water (if receiving proper sonar data from other device)
- WATER TEMPERATURE – Water temperature (if receiving proper sonar data from other device)

NOTE: COMPASS, HIGHWAY and POSITION will only be available on medium and large sized data fields.

You may also choose to 'split' the default numbers to 4 smaller fields for more data or you may 'merge' the smaller fields back to their original size. All the Main Pages (except the Numbers and Active Route Pages) will have 4 medium sized fields, which may be split to a total of 16 small fields. The Numbers Page will display 4 large fields, which may be split to a total of 16 medium fields. This option is available from any of the Main Pages, except the Active Route Page.

To Split or Merge the Numbers fields:

1. While in 'Change Nmbrs' mode, highlight the data field you want to change and press the 'Split Number' or 'Merge Numbers' **SOFT KEY**. You will now see four new data fields or one large field. You may also use the **IN** or **OUT** keys to split and merge the fields. Press **QUIT** when done or press the 'Quit' **SOFT KEY**.
2. To return to the factory configuration, press the 'Defaults' **SOFT KEY** while in 'Change Nmbrs mode. Press **QUIT** when done or press the 'Quit' **SOFT KEY**.

• **Hide Nmbrs/Show Nmbrs —** toggles between a Map Page without or with data fields on the map display.

To maximize the map/show data fields:

1. Press the 'Hide Nmbrs' **SOFT KEY**. The Map Page will now be maximized with no data fields.
2. To show the data fields again, press the 'Show Nmbrs' **SOFT KEY**.

• **Measure —** allows you to measure the bearing and distance between any two points on the map display.

To measure the BRG/DIS between two points:

1. Press the 'Measure Distance' **SOFT KEY**. An on-screen pointer will appear on the map display at your present position with 'ENT REF' below it.
2. Move the cursor to the desired reference point (the point that you want to measure from) and press **ENTER/MARK**.
3. Move the cursor to the point that you want to measure to. The bearing and distance from the reference point and cursor coordinates will be displayed in the data window at the top of the display. Press the **QUIT** key to finish.

• **Set Up Map—** allows you to configure the map display to your preferences, including map detail, map orientation, automatic zoom, and various map items and points. The map set up option uses a 'file tab' feature, making it easier to organize the various settings for ease of use. The following table lists the file tabs and the settings available under each tab:

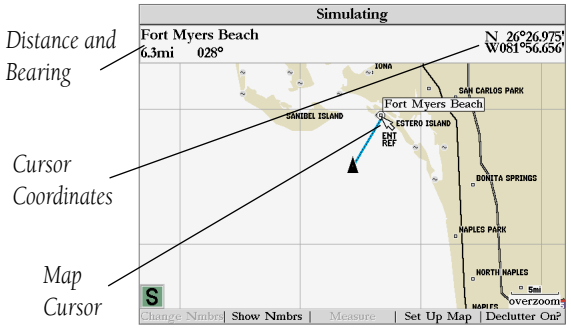
General	Detail, Orientation, AutoZoom, Map Colors
Source	Basemap, Data Card Maps
Waypoints	Waypoints, Active Route
Points	Spot Soundings, Tide Stations, Services
Nav Line	Heading Line, Bearing Line, Course Line
Track	Saved Tracks, Track Log
Other	Accuracy Circle, Lat/Lon Grid, Map Outlines

To change a map setup feature:

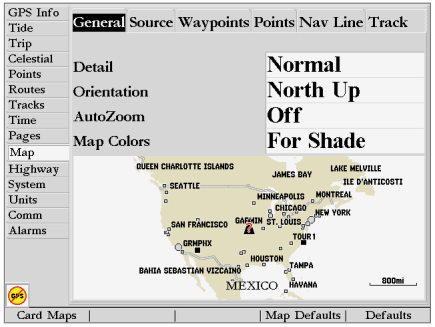
1. Press the 'Set Up Map' **SOFT KEY**.
2. Move LEFT or RIGHT on the **ARROW KEYPAD** to highlight the desired tab, then UP or DOWN on the **ARROW KEYPAD** to highlight the setting you want to change and press **ENTER/MARK**.
3. Move UP or DOWN on the **ARROW KEYPAD** to highlight to the desired setting and press **ENTER/MARK**. To exit, press **QUIT**.

General Tab

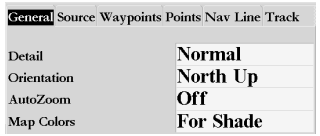
Detail— Most, More, Normal, Less, Least: controls how much map detail you will see. This setting only applies to any map feature set to "Auto". Those features which have a specified scale or turned "Off" are unaffected by this setting.



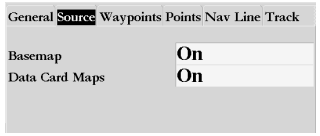
Full screen map shown



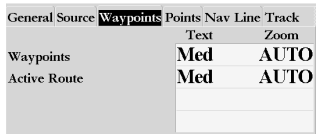
Main Menu—Map Configuration Tab



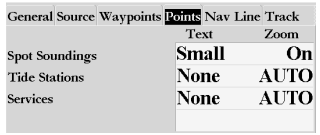
General Tab



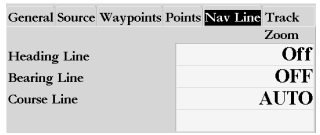
Source Tab



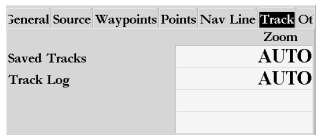
Waypoints Tab



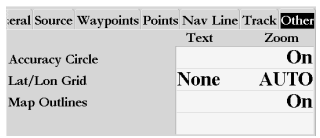
Points Tab



Nav Line Tab



Track Tab



Other Tab

Orientation— North Up— fixes the top of the map display to a north heading; Track Up— fixes the top of the map display to the current track heading; Course Up— fixes the map so the direction of navigation is always "up" and turns the navigation leg line vertical on the screen.

AutoZoom— On/Off: when "On" the map will automatically adjust the map scale to a lower scale as you approach you destination point.

Map Colors— Water /Land Mode or For Shade/Sunlight (color models only): when in "Water Mode", land will appear as a darker color and water will be lighter. In "Land Mode", land will appear as a lighter color and water will be darker. If using optional BlueChart data, it is recommended to use 'Water Mode'. For color models, "For Shade" is designed to match the color of physical marine charts as closely as possible. Use this setting when in shaded environments. "For Sunlight" displays more vibrant colors for use in sunny environments. BlueChart data may be used with either color model mode.

Source Tab

Basemap— On/Off: turns the built in base map on or off.

Data Card Maps— On/Off: turns all optional BlueChart/MapSource data loaded on the data card on or off.

Waypoints Tab— Waypoints/Active Route

Text— None, Small, Medium, and Large: controls the screen size of the name.

Zoom— Auto, Off, 120 ft.-800 mi.: sets the maximum scale at which the feature should appear on the screen. Some types of data will only show up to certain zoom scales.

Points Tab— Spot Soundings/Tide Stations/ Services

Text— None (except Spot Soundings), Small, Medium, and Large: controls the screen size of the name.

Zoom— Auto, Off, 120 ft.-800 mi.: sets the maximum scale at which the feature should appear on the screen. Some types of data will only show up to certain zoom scales. (Spot Soundings On/Off only)

Nav Line Tab—

Heading Line— On/Off: draws an extension from the end of the boat icon in the direction of travel.

Bearing Line— On/Off: toggles the black/white line which points to the current navigation point.

Course Line— Auto, Off, 120 ft.-800 mi.: sets the maximum zoom scale at which the desired course line should appear on the screen.

Track Tab— Saved Tracks/Track Log

Zoom— Auto, Off, 120 ft.-800 mi.: sets the maximum scale at which the feature should appear on the screen. Some types of data will only show up to certain zoom scales.

Other Tab—

Accuracy Circle— On/Off: toggles the circle "On" and "Off". The circle represents the approximate accuracy of the unit based on EPE, DOP, and basemap quality. Your position will be within the circle.

Lat/Lon Grid— Text— None, Small, Medium, and Large: controls the screen size of the name. Zoom— Auto, Off, 120 ft.-800 mi.: sets the maximum scale at which the feature should appear on the screen.

Map Outlines— On/Off: toggles the coverage boxes for BlueChart/MapSource data "On" and "Off".

Map Setup Soft Key Options

From the map setup page, you can access the following menu options:

- Card Maps— shows a list of the optional BlueChart/MapSource data loaded on the data card. Each area is described by name and may be deselected if you do not wish to display the data on the Map Page.
- Map Defaults— restores settings back to factory settings for all tabs.
- Defaults— restores settings back to factory settings for only the highlighted tab.

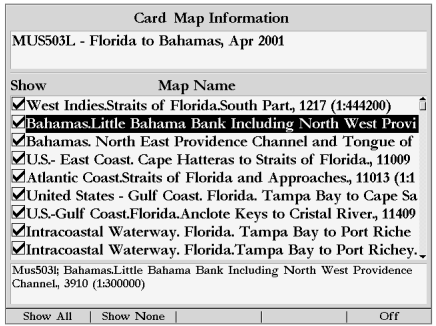
To display the Card Map Information Page:

1. Press the 'Card Maps' **SOFT KEY**.
2. Use the **ARROW KEYPAD** to scroll through the list of maps.
3. To select/deselect a map, highlight the check box to the left of the name of the desired map. Press **ENTER/MARK** or the **On/Off** SOFT KEY to select/deselect the map. The map is selected and will be displayed on the Map Page when an "✓" appears in the box adjacent to that map. You may also choose to 'Show All' or 'Show None' by pressing the corresponding **SOFT KEY**.
4. To display detailed information and notes for each area, highlight the desired name and press **ENTER/MARK**. To view the notes for that area, choose 'Show Notes'. To scroll through the notes, you may either, highlight the notes, press **ENTER/MARK** and use the **ARROW KEYPAD** to scroll, up, down, left and right or press the desired **SOFT KEY** scroll option. Press **QUIT** to exit.

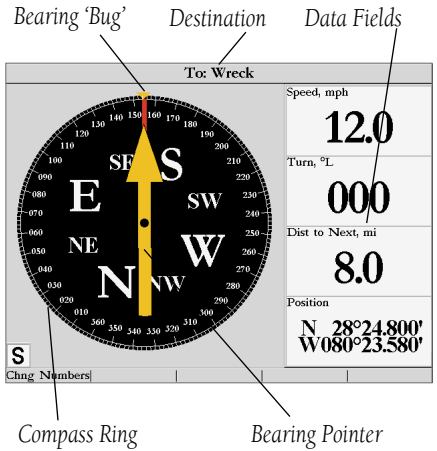
To restore defaults for map settings:

1. From the Map tab in the Main Menu, highlight the tab you want to restore settings to and press the 'Defaults' (or 'Map Defaults' if you want all tabs restored) **SOFT KEY**.

• Declutter On/Off? — toggles between showing/not showing spot sounds and map outlines for easier viewing. These settings will automatically be changed in the Map Setup. Press the Declutter On/Off? **SOFT KEY** to toggle this feature.



Card Map Information Page



Compass Page

Whenever a Go To, Follow Track (TracBack) or Follow Route have been activated, the GPSMAP 2006/2010's Compass Page will guide you to your destination with digital readouts and a graphic compass display, which includes a bearing pointer. Use this page when travelling at slower speeds, when making frequent directional changes, or where straight-line navigation is not possible due to obstructions or terrain. The left side of the page features a rotating 'compass ring' that shows your course over ground (track) while you're moving. Your present course over ground is indicated at the top of the compass ring. A bearing pointer arrow, in the middle of the compass ring, and a bearing 'bug' indicator on the outside of the compass ring, indicate the direction of the destination (bearing) relative to the course over ground. The compass ring and pointer arrow work independently to show—at a glance—the direction of your movement and the direction to your destination. For instance, 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 and bug indicator until it points up, then continue in that direction.

The bearing pointer, bearing bug and/or compass ring may point in various directions when you are stationary or at very low speeds. Once you start moving, the pointer will be correct.

The GPSMAP 2006/2010's Compass Page features a **SOFT KEY** option that provides access to layout and data field options. The data window, located on the right side of the page, provides a user-selectable layout of various types of useful data. Each data field may be configured to display one of several data options. The data window layout may also be changed to display more/less number fields and change the actual size of the numbers displayed.

To change the number fields:

1. Press the 'Change Nmbrs' **SOFT KEY**, then highlight the desired field and press **ENTER/MARK** or choose from one of the **SOFT KEY** options. For detailed instructions on changing the data fields and layout of the Compass Page, see pages 16-18.

Numbers Page

The Numbers Page provides a quick reference for the important data you want to display. The default page will display four large, user-selectable data fields showing a compass ribbon, speed, current position coordinates and a smaller version of the Highway Page. You may also choose to show the four data fields in large lettering for better readability or you may 'split' any or all of the data fields to show 4 medium sized data fields. It is not possible to split the medium sized cells into small data fields (on the Numbers Page only). For detailed instructions on changing the data fields and layout of the Numbers Page, see pages 16-18.

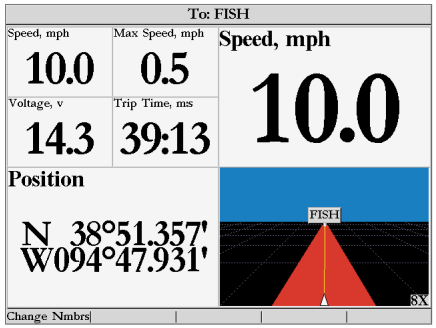
Highway Page

Whenever a Go To, TracBack or Route has been activated, the GPSMAP 2006/2010's Highway Page will provide digital and graphic steering guidance to the destination. The right side of the Highway Page features user-selectable data fields that display useful navigation data. Additionally, a compass ribbon is displayed, across the top of the page, to show your current heading along with a dark, vertical bar (Orange on color models) which will indicate the bearing to your course. When the dark, vertical indicator lines up with the lighter gray (or red) bar in the middle, you are heading directly towards the current navigation point. You can tell if you are off your desired track line by viewing the bottom section of the screen which provides visual guidance to the waypoint on a graphic highway display. The line down the center of the highway represents your desired track line.

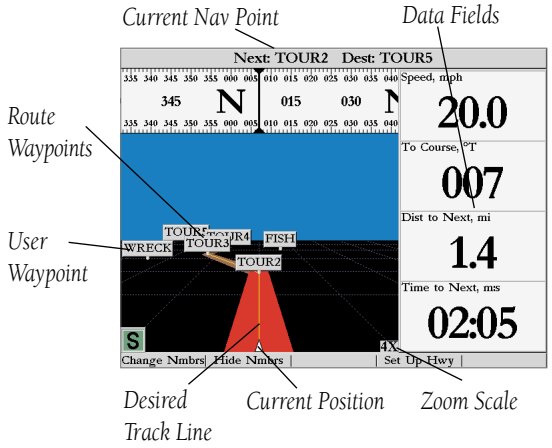
As you head toward your destination, the highway perspective moves to indicate your progress to the waypoint and which direction you should steer to stay on course. If you are navigating a route, the Highway Page shows each route waypoint in sequence connected by a "road" with a line down the middle, which is your desired track line. Nearby waypoints not in the active route can also be displayed. The highway perspective scale may also be zoomed in or out to display a larger or smaller view of the highway. Five settings are available from 1X to 16X, with a default setting of 8X.

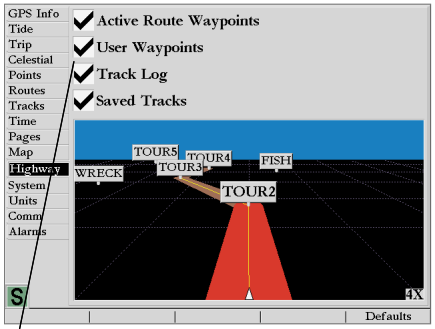
To change the highway perspective scale:

1. Press the **IN** or **OUT** key to select the desired setting.

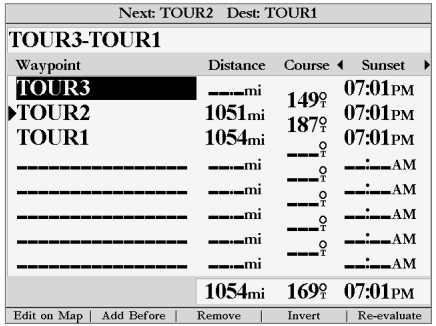


Numbers Page shown with upper left data field split into four medium fields





Check or uncheck the options you wish to show/not show on the Highway Page.



Active Route Page

The GPSMAP 2006/2010's Highway Page features **SOFT KEY** options that provide access to functions and features relating to the Highway Page and the layout options. Options allow you to define the data fields to display several data options and select which waypoints and tracks are displayed on screen. Press the corresponding **SOFT KEY** to activate the desired option.

- **Change Nmbrs—** allows you to specify the type of data displayed in each data field used on the Highway Page and to display additional data fields. For detailed instructions on changing the data fields and layout of the Highway page, see pages 16-18.

If you change a data field to 'Highway', you can change the Highway scale for the Highway data field by pressing the IN or OUT key while the cell is highlighted in "Change Nmbrs" mode.

- **Hide/Show Nmbrs—** toggles between a Highway Page without or with data fields on the display.

To maximize the Highway Page/show data fields:

1. Press the 'Hide Nmbrs' **SOFT KEY**. The Highway Page will now be maximized with no data fields.
2. To show the data fields again, press the 'Show Nmbrs' **SOFT KEY**.

- **Set Up Hwy (Highway)—** allows you to select what waypoints and tracks are shown on the Highway display. Use the **ARROW KEYPAD** and **ENTER/MARK** key to select/deselect the desired options. Four options are available:
  - Active Route Waypoints— all active route waypoints.
  - User Waypoints— only nearby waypoints to the route.
  - Track Log— current active track log.
  - Saved Tracks— any saved track logs near the route.

Active Route Page

Whenever you have activated a route in the GPSMAP 2006/2010 system, the Active Route page will show each waypoint of the active route, along with various, user-selectable types of data. For additional details on the Active Route Page, see page 42.

Creating and Using Waypoints

The GARMIN GPSMAP 2006/2010 stores up to 3000 alphanumeric waypoints with a user-defined icon, comments and depth (depth will automatically be displayed if valid sonar data is being received. See pg. 70) available for each waypoint. Waypoints can be created using two basic methods:

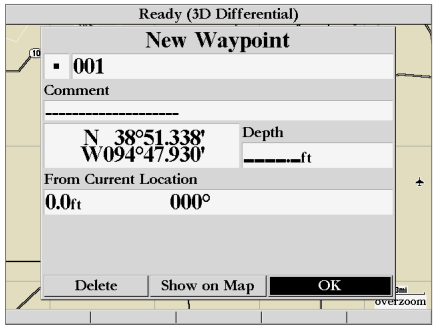
- **ENTER/MARK** key– used primarily for marking your present position. You may also enter a new waypoint's position coordinates manually (from a chart, etc.).
- Graphically– allows you to define a new waypoint position from the map display using the **ARROW KEYPAD**.

ENTER/MARK Key

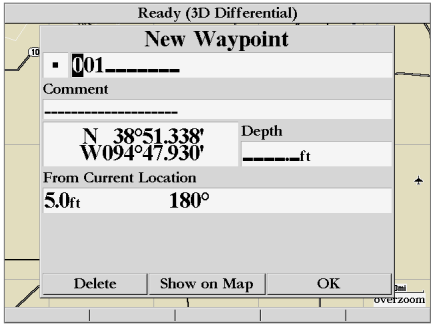
The GARMIN GPSMAP 2006/2010's **ENTER/MARK** key lets you quickly capture your present position— or cursor or map item position— in order to create a new waypoint. You must have a valid position (2D or 3D) fix to mark your present position. (This can be determined by looking at the GPS tab on the Main Menu.) When you move the cursor over a map item, you will see a highlighted description of that item. You may also use this option to manually enter waypoint coordinates.

To mark your present position:

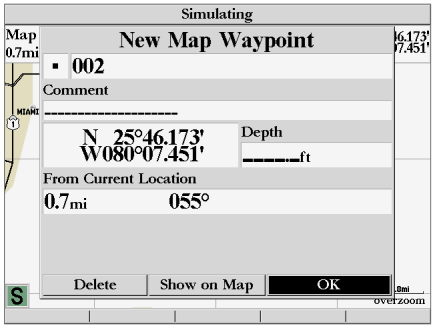
1. Press and hold the **ENTER/MARK** key until the 'New Waypoint' window appears then release it. You will see a default three-digit name and symbol for the new waypoint.
2. To accept the waypoint with the default name and symbol, press **ENTER/MARK** to confirm the highlighted 'OK' prompt.
3. To enter a different name, highlight the name field and press the **ENTER/MARK** key, then use the **DATA ENTRY** keys (see page 7-8) to enter the new letter/numbers and press **ENTER/MARK** when done. Note: You may use up to 10 alphanumeric characters for the name.
4. To enter a different symbol, highlight the symbol field to the left of the name and press the **ENTER/MARK** key, then use the **ARROW KEYPAD** to highlight the new symbol and press **ENTER/MARK**.
5. To enter optional comments or a depth, highlight the desired field and press the **ENTER/MARK** key, then use the **DATA ENTRY** keys (see page 7-8) to enter a value and press **ENTER/MARK**.
6. To manually enter a set of coordinates, highlight the coordinates and press the **ENTER/MARK** key, then use the **DATA ENTRY** keys (see page 7-8) to enter the new coordinates and press **ENTER/MARK** when done.
7. When done, use the **ARROW KEYPAD** to highlight the 'OK' prompt and press **ENTER/MARK** to save the waypoint into memory.



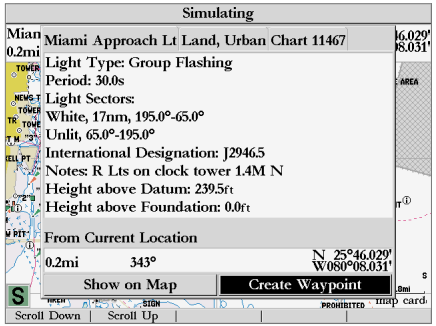
Press ENTER/MARK to use the default name and symbol.



Highlight a field and press ENTER/MARK to enter a new symbol, name, comment or depth.



Map waypoint from non-map item



Choose 'Create Waypoint' to use a map item for a new waypoint.

Creating Waypoints Graphically

Waypoints may also be quickly created from the map display, which allows you to 'point and shoot' at any map position to create a new waypoint. To mark a map item, select the desired map item with the cursor. When selecting a map item, the option 'Create Waypoint' will appear in addition to a description of that point and its distance and bearing from your current position.

To create a new waypoint graphically:

1. Use the **ARROW KEYPAD** to move the cursor to the desired map position. If you want to create the new waypoint at an on-screen map item, highlight the map item on the map display.
2. Press and release the **ENTER/MARK** key to capture the cursor position. Do not hold the button down, as doing so will mark your present position, not the map position.

   If you are not using a map item to create a waypoint, go to step 4.
3. Highlight 'Create Waypoint' or 'OK' and press the **ENTER/MARK** key.
4. To accept the waypoint with the default name and symbol, press **ENTER/MARK**.
5. To change the name, symbol, coordinates, or add a comment or depth, highlight the appropriate field and press **ENTER/MARK**. Make your changes and press **ENTER/MARK** when done.
6. After entering and confirming your changes, move the field highlight back to the 'OK' prompt and press **ENTER/MARK**.

Reviewing and Editing Waypoints

Once you have created and stored a waypoint, it may be modified, reviewed, renamed, moved or deleted at any time through the Waypoint Edit page. The Waypoint Edit page is available for any stored waypoint by highlighting the desired waypoint from the map display or selecting it from the waypoint lists under the 'Points' tab in the Main Menu and pressing the **ENTER/MARK** key once.

To access the Waypoint Edit page:

1. Use the **ARROW KEYPAD** to highlight the desired waypoint on the map display. You may also press **MENU**, highlight the 'Points' tab, and then highlight a waypoint from the 'User', or 'Proximity' waypoint lists.
2. Press **ENTER/MARK** to display the Waypoint Edit page.

From the Waypoint Edit page, you may change the name, symbol, comment, position coordinates, or depth for the selected waypoint. Once the changes have been made, highlight 'Next' and press **ENTER/MARK** to save them or press **QUIT**.

To change the waypoint name:

1. Highlight the waypoint name field and press **ENTER/MARK**.
2. Use the **DATA ENTRY** keys to enter a new name and press **ENTER/MARK** when done.

To change the waypoint symbol:

1. Highlight the waypoint symbol field to the left of the waypoint name and press **ENTER/MARK**.
2. Use the **ARROW KEYPAD** to select the desired symbol and press **ENTER/MARK** when done.

To change the Comment/Position Coordinates/Depth:

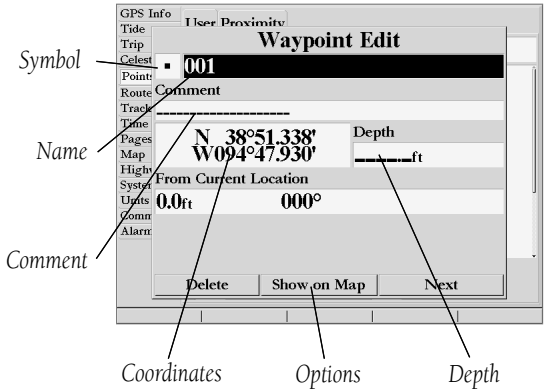
1. Highlight the desired field and press **ENTER/MARK**.
2. Use the **DATA ENTRY** keys to edit/enter the data. To drop to the next line, press to the right on the **ARROW KEYPAD**.
3. Press **ENTER/MARK** when done.

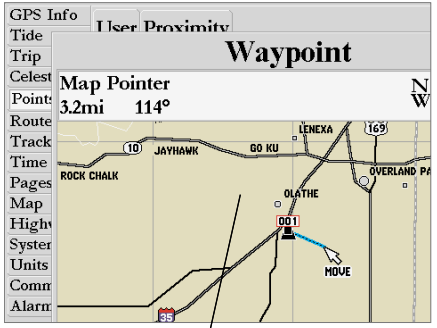
To move the waypoint on the map:

1. From the Waypoint Edit page, highlight 'Show Map' and press **ENTER/MARK**. Highlight the waypoint and press **ENTER/MARK**. A 'MOVE' label will now appear under the cursor arrow in addition to a distance, bearing, and coordinate window. You may also use the IN and OUT keys to zoom the map. The map scale will appear in the lower right corner.
2. Use the **ARROW KEYPAD** to point to the new position and press **ENTER/MARK**. If you wish to stop the move process, press **QUIT**.

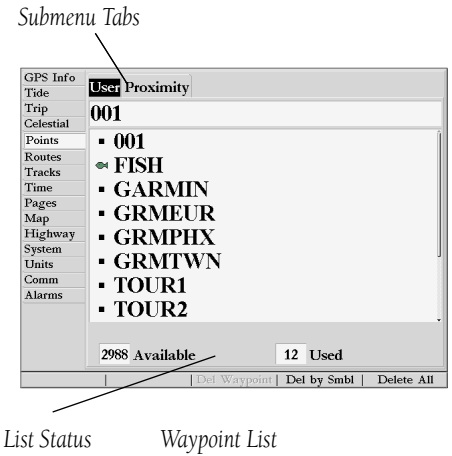
Point Submenus

The GPSMAP 2006/2010's Main Menu Page features two waypoint submenu tabs, 'User' and 'Proximity', that let you manage a large number of waypoints quickly and efficiently. The submenu tabs also provide a continuously updated proximity waypoint alarm function that can be used to define an alarm circle around submerged hazards, shallow waters, etc.





Point to a new location and press ENTER/MARK to move the waypoint.



To access the Main Menu Page/Waypoint (Points) submenus:

1. Press **MENU**, then highlight the 'Points' tab using the **ARROW KEYPAD**, then highlight the desired submenu tab.

User Waypoint List

The first waypoint submenu list available from the 'Points' tab is the 'User' list, which displays a master list of all waypoints currently stored in memory. From the User list, you may review, edit, rename or delete individual waypoints, or delete all user waypoints. The total number of stored and available waypoints is displayed at the bottom of the 'User' page, with the stored waypoints arranged in numerical/alphabetical order. The following options are available from the 'User' list of the 'Points' tab:

- Delete Waypoint— deletes selected waypoint from list and any route in which it was used.
- Delete By Symbol— deletes waypoints that use the same symbol.
- Delete All— deletes all waypoints from the unit.

Once a waypoint is deleted from the list, it cannot be recovered from the unit. It is advisable to backup important waypoints to a computer using an optional PC cable and interface software or record them down manually.

To scroll through and review the waypoint list:

1. With the **ARROW KEYPAD**, highlight the 'Points' tab from the main menu page and then highlight 'User'.
2. Use the **ARROW KEYPAD** to scroll through the list in the desired direction.
3. Press **ENTER/MARK** to review the highlighted waypoint on the 'Waypoint Edit' page.
4. Press **ENTER/MARK** to return to the list and automatically highlight the next waypoint.

To delete an individual waypoint from the list:

1. Use the **ARROW KEYPAD** to highlight the waypoint to be deleted.
2. Press the 'Delete Waypoint' **SOFT KEY**. You may also highlight the waypoint, press **ENTER/MARK**, then highlight 'Delete' and press **ENTER/MARK**.
3. Press the **ENTER/MARK** key to confirm the deletion warning.

To delete waypoints by symbol:

1. From the 'User' tab, press the 'Delete By Symbol' **SOFT KEY**.
2. Use the **ARROW KEYPAD** to highlight the symbol of the waypoint(s) to be deleted and press **ENTER/MARK**.
3. Press **ENTER/MARK** to confirm. You may also choose 'Cancel' or press **QUIT** to stop the deletion.

To delete all waypoints or the entire waypoint list:

1. From the 'User' tab, press the 'Delete All' **SOFT KEY**.
2. Press **ENTER/MARK** to confirm. You may also choose 'Cancel' or press **QUIT** to stop the deletion.

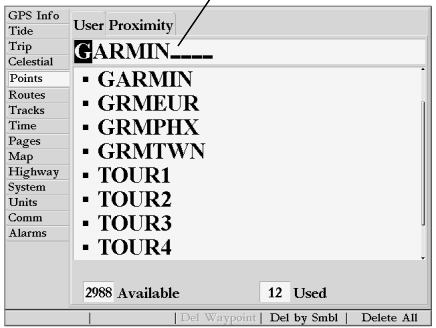
Proximity Waypoint List

The second waypoint submenu list available from the 'Points' tab is the 'Proximity' list, which lets you define an alarm circle around a stored waypoint position, and can be used to help you avoid reefs, rocks or restricted waters. Up to ten waypoints may be listed, with a maximum alarm radius of 99.99 nautical or statute miles or kilometers. If a proximity alarm circle overlaps with an existing alarm circle, a 'Proximity Overlaps Another Proximity Waypoint' message will appear. Since the unit will only alert for one of the overlap points, use caution when navigating in these areas. If you enter an alarm circle overlap, you will only be alerted to the closest proximity waypoint.

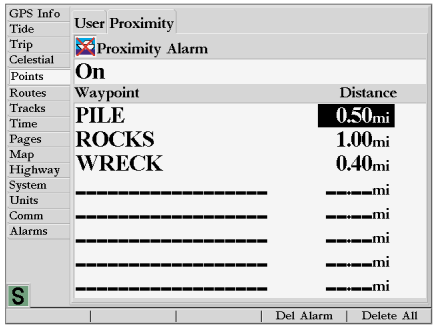
To add a proximity waypoint:

1. Use the **ARROW KEYPAD** to highlight an empty space on the Proximity list and press **ENTER/MARK** or press the 'Add Waypoint' **SOFT KEY**. The 'Find' screen appears. Highlight 'Waypoints' and press **ENTER/MARK**. You may also select from other items listed on the 'Find' screen.
2. To select a waypoint from the lists, use the **ARROW KEYPAD** to highlight the desired waypoint from the 'User' or 'Nearest From Current Location' tab lists.

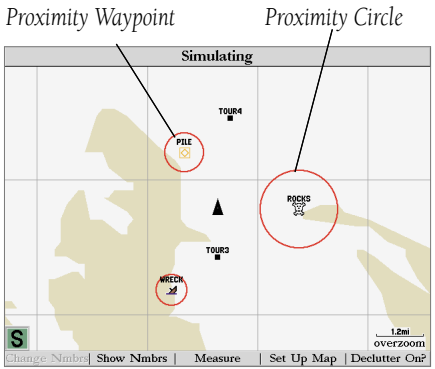
   To select a waypoint from the map, highlight either the 'User' or 'Nearest From Current Location' tab and press the 'Select From Map' **SOFT KEY**. Use the zoom **IN** and **OUT** buttons and the **ARROW KEYPAD** to highlight a waypoint.
3. Press **ENTER/MARK** to confirm. The distance field will now be highlighted.
4. Press **ENTER/MARK** to begin entry of the proximity radius.
5. Use the **DATA ENTRY** keys to enter a distance value (to 99.99 units) and press **ENTER/MARK**.



You can also search for a waypoint by name:
1. Highlight the name field and press ENTER/MARK.
2. Use the DATA ENTRY to select the first letter of the name.
3. Enter the second letter if you do not see it on the list below.
4. Repeat this until the name appears. Press ENTER/MARK when you see the name.



Proximity Waypoint List



A circle (red) will appear showing the alert boundary for the proximity waypoints.

To turn proximity alarms on or off:

1. Use the **ARROW KEYPAD** to highlight the field below "Proximity Alarm" and press **ENTER/MARK**.
2. Select the desired 'ON' or 'OFF' setting and press **ENTER/MARK**.

The following **SOFT KEY** options are available from the 'Proximity' submenu of the 'Points' tab:

- Clear Alarm— removes selected waypoint from proximity list.
- Clear All— removes all waypoints from proximity list.

To clear one or all proximity waypoint(s) from the list:

1. Use the **ARROW KEYPAD** to highlight the proximity waypoint to clear.
2. To clear a single alarm, press the 'Clear Alarm' **SOFT KEY**.
3. To clear all proximity waypoints, press the 'Clear All' **SOFT KEY**.
4. Use the **ARROW KEYPAD** to highlight the 'OK' prompt and press **ENTER/MARK** to confirm.

Going to a Destination

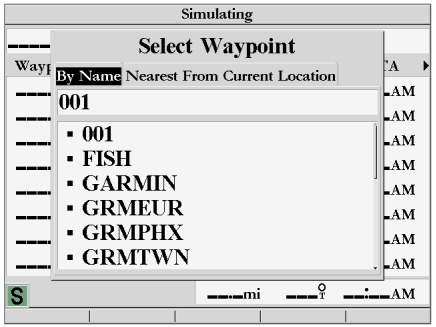
Using the **NAV** key, the GPSMAP 2006/2010 provides three ways to navigate to a destination: Go To Point, Follow Route and Follow Track (TracBack). Once you are actively navigating, you will see a straight line that always runs from your current location to the destination. The easiest method for selecting a destination is the 'Go To' function, which lets you select a destination point and quickly sets a direct course from your present position. If you have a point, route or track highlighted on a list or the map, 'Go To <point name>' will appear in addition to 'Go To Point'. The 'Go To' function can be accessed from any list of points or graphically from the map display.

To activate a 'Go To' from a point list:

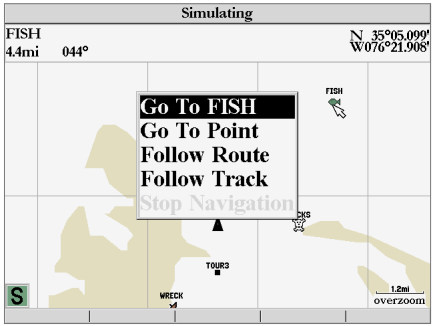
1. Press the **NAV** key.
2. Use the **ARROW KEYPAD** to highlight 'Go To Point' and press **ENTER/MARK**.
3. From the 'Find' menu, highlight 'Waypoints' and press **ENTER/MARK**. (You may also choose to go to other points, such as Cities, Tide Stations, etc. from this list.)
4. To select a waypoint from the waypoint lists, use the **ARROW KEYPAD** to highlight either the 'User' or 'Nearest From Current Location' tab, select a waypoint and press **ENTER/MARK**. Use the zoom **IN** and **OUT** buttons and the **ARROW KEYPAD** to select a waypoint, then press **ENTER/MARK**.
5. You may also activate a 'Go To' for any point, on any list. With any list point highlighted, press the **NAV** key. You will see 'Go To <point name>' appear, then press **ENTER/MARK**.

Selecting a 'Go To' Graphically

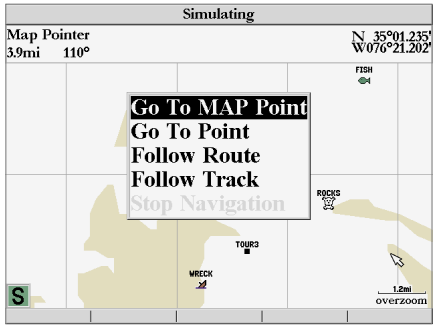
A graphical 'Go To' may be used to select one of three items from the map display: an existing waypoint, an on-screen map item (roads, rivers, cities, navaids, etc.), or a new map point (non-map item). If you are selecting a map item as the 'Go To' destination, the GPSMAP 2006/2010 will automatically use the name of the map item, but the point will not be stored in the waypoint list. See page 26 for creating waypoints using map items. If you are selecting a new map point (non-map item) as the 'Go To' destination, the GPSMAP 2006/2010 will automatically create or move a waypoint named 'MAP' at the cursor position.



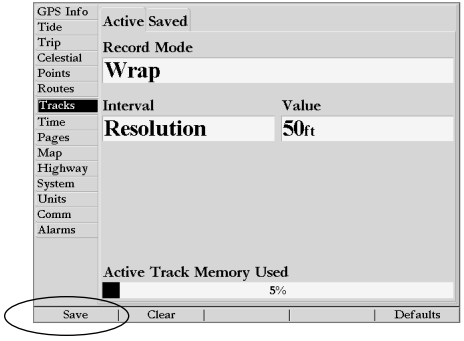
Choose a waypoint from either the 'User' or 'Nearest From Current Location' tab list.



The waypoint or map item name will automatically appear when highlighted and NAV is pressed.



'Go To MAP Point' allows you to navigate to a spot on the map which is not a waypoint or map item.



Press the 'Save' SOFT KEY to save an active track log.

To activate an existing waypoint or map item as a 'Go To' from the map display:

1. Use the **ARROW KEYPAD** to highlight the waypoint or map item on screen and press **NAV**.
2. You will see 'Go To <waypoint name>', then press **ENTER/MARK**. You may also highlight the waypoint or map item, press **ENTER/MARK** to review it first, press **NAV** and then press **ENTER/MARK**.

To activate a new map point (non-map item) as a 'Go To' from the map display:

1. Use the **ARROW KEYPAD** to move the arrow cursor to the desired position.
2. Press **NAV**, you will see 'Go To MAP Point' highlighted, then press **ENTER/MARK**.

TracBack Navigation (Follow Track)

The second method of navigating to a destination is by using the TracBack or Follow Track feature. The TracBack function allows you to retrace your path using the track log automatically stored in the receiver's memory, which will eliminate the need to store waypoints along the way. TracBack routes are created by reducing your track log into a route of up to 50 turns and activating a route along those points. Once activated, a TracBack route will lead you along the stored track log points, so it's a good idea to clear the existing track log before the start of your current trip.

To clear the track log and define a starting point for a TracBack route:

1. Press the **MENU** key to display the Main Menu page.
2. Using the **ARROW KEYPAD**, highlight the 'Tracks' tab, then highlight the 'Active' tab to the right.
3. Press the 'Clear' **SOFT KEY** to select the 'Clear' option.
4. Highlight the 'OK' field and press **ENTER/MARK** to confirm

You must first save the track log before you can use the 'Follow Track' feature. The Save feature allows you to store up to 20 track logs from certain times and dates.

To save a track log:

1. From the Main Menu, use the **ARROW KEYPAD** to highlight the 'Track' tab, then highlight the 'Active' tab to the right.
2. Press the 'Save' **SOFT KEY** to select the 'Save' option.
3. From the 'Save Back Through' window, highlight the desired time, date, or 'Entire Log' and press **ENTER/MARK.**

4. Next, the track will begin saving and then display the 'Saved Track' window when done. The default name, distance and number of points (1000 max) will be displayed. To change the name of the saved track, highlight the name field and press **ENTER/MARK**, make your changes and press **ENTER/MARK** again. If you wish for the saved track to be displayed on the Map and Highway page, highlight the check box to the left of 'Show on Map and Highway' and press **ENTER/MARK**. Highlight 'OK' and **ENTER/MARK** press to save the track.

To activate a TracBack using the NAV key:

1. Press the **NAV** key, then highlight the 'Follow Track' option and press **ENTER/MARK**.
2. Highlight the track you wish to follow and press **ENTER/MARK**.
3. If you wish to navigate from the end to the beginning (reverse) of your trip, press the 'Invert' **SOFT KEY**.

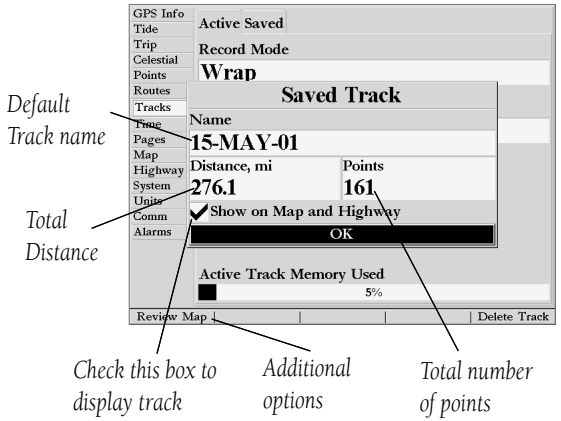
Once a TracBack has been activated, the GPSMAP 2006/2010 will take the track log currently stored in memory and divide it into segments called 'legs'. Up to 50 temporary 'turns' will be created to mark the most significant features of the track log in order to duplicate your exact path as closely as possible. To get the most out of the TracBack feature, remember the following tips:

- Always clear the track log at the beginning of your trip.
- The 'Record Mode' option on the track log setup page must be set to 'Fill' or 'Wrap'.
- There must be at least two track log points stored in memory to create a TracBack route.
- If the track log interval is set to the 'Time' option, the route may not follow your exact path (keep the interval set to 'resolution' for best performance).
- If the receiver is turned off or satellite coverage is lost during your trip, the TracBack will draw a straight line between any point where coverage was lost and where it resumed.
- If your track log's changes in distance and direction are too complex, 50 points may not mark your path accurately. The receiver then assigns the 50 points to the most significant points of your track, and simplifies segments with fewer changes in direction.

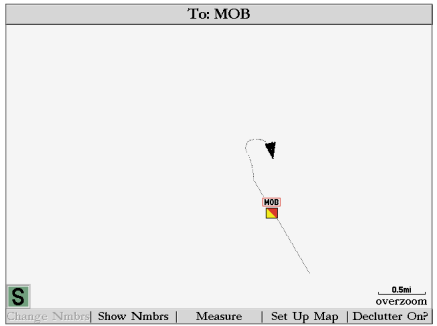
To stop TracBack navigation:

1. Press the **NAV** key, highlight 'Stop Navigation' and press **ENTER/MARK**.

For more information on setting up the Track options and saved tracks, see pages 53-54.



You must first save a track before using the 'Follow Track' option.



The MOB function allows you to quickly activate a navigation back to a location.

MOB

The GPSMAP 2006/2010's Man OverBoard function (MOB) lets you simultaneously mark and set a course to a position for quick response to emergency situations.

To activate the MOB function:

1. Press the **MOB** key.
2. Press the **ENTER/MARK** key to confirm and begin navigating to the MOB position.

Once a MOB has been activated, a 'MOB' waypoint with an international MOB symbol will be created and the unit will be on an active navigation to that point. Use any of the Navigation Pages to guide you back to the MOB point. The MOB waypoint will be stored in the waypoint list and may be deleted like any other waypoint.

To stop navigation to the MOB position:

1. Press the **NAV** key, highlight 'Stop Navigation' and press **ENTER/MARK**.

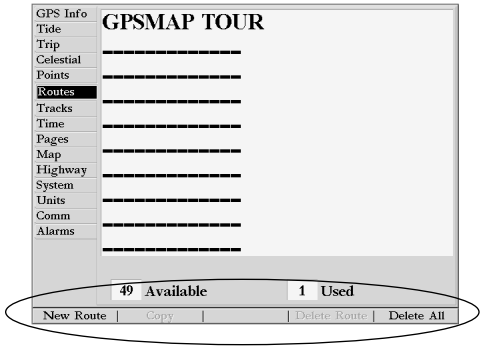
Routes

The last way to navigate to a destination is to create a user-defined route. The GARMIN GPSMAP 2006/2010 system lets you create and store up to 50 reversible routes (numbered 1-50), with up to 50 waypoints each. Routes can be created and modified in two ways. The first way is from the 'Edit on Map' from the Route Edit map page, allowing you to see each route graphically on-screen as you create, review, or modify the route. The second way is to 'Edit as Text' from the Route Review page, allowing you to see a list of the waypoints as you create, review, or modify the route. All of the GPSMAP 2006/2010's route functions are accessed through the Main Menu page or the **NAV** key.

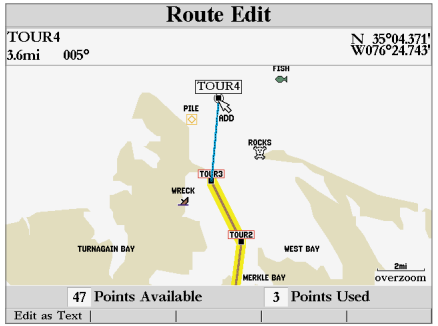
To create a route graphically from the Route Edit map page:

1. Press the **MENU** key to display the Main Menu page.
2. Use the **ARROW KEYPAD** to highlight the 'Route' tab and press the 'New Route' **SOFT KEY** or you may also highlight the first available blank route slot and press **ENTER/MARK**.
3. To add an existing waypoint or map item to the route, use the arrow cursor to highlight the desired waypoint or map item on screen and press **ENTER/MARK**. Map items will not appear in the waypoint list. To create a waypoint from a map item, see page 26.
4. To add a new waypoint to the route, use the arrow cursor to select the desired map position and press **ENTER/MARK**. Press **ENTER/MARK** again to confirm the new waypoint. You may also change the name and symbol of the new waypoint (see page 27).

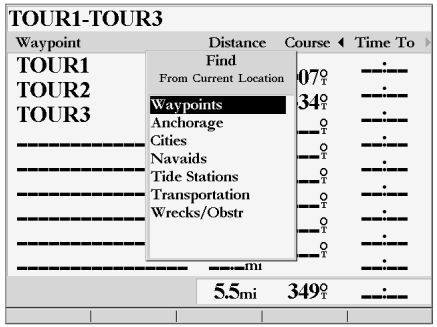
   As you add each new waypoint to the route, the data window at the top of the map display will show the waypoint/map item name, bearing and distance from your first point, and coordinates of the cursor. After additional points are added, the bearing and distance will calculate from the location of the previous route point. The bottom of the display will show you the number of available and used points. A route line will appear on the map to indicate each completed leg, and a dotted line (yellow on color models) will appear to indicate the distance and bearing to the arrow cursor from the last route waypoint.
5. Repeat steps 3 and 4 until you have finished defining all route waypoints.
6. When finished press **QUIT** twice to return to the Route List page or press the 'Edit as Text' **SOFT KEY** to return to the Route Review page.



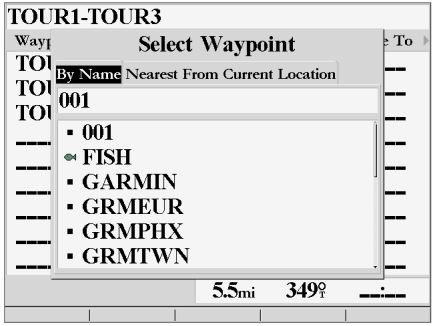
Route Tab and SOFT KEY Options



You will see 'ADD' below the cursor as you add points.



Choose the category you want to add a route point from.



Choose a waypoint from either the 'User' or 'Nearest From Current Location' tab list.

To create a route using text from the Route Review page:

1. Press the **MENU** key to display the Main Menu page.
2. Use the **ARROW KEYPAD** to highlight the 'Route' tab and press the 'New Route' **SOFT KEY** or you may also highlight the first available blank route slot and press **ENTER/MARK**.
3. Press the 'Edit as Text' **SOFT KEY**.
4. Use the **ARROW KEYPAD** to highlight the first field under the word "Waypoint" and press **ENTER/MARK.**
5. From the 'Find' menu, highlight 'Waypoints' and press **ENTER/MARK**. (You may also choose from other points, such as Cities, Tide Stations, etc. from this list.) From either the "User" or "Nearest From Current Location" tab lists, choose the waypoint you want and press **ENTER/MARK**. (See page 28-29 for searching for waypoints by name.)
6. From the Waypoint Review or map item information page, 'OK' will be automatically highlighted. You may use the 'Show On Map' option to view the point on the map, then press **QUIT** when done viewing to return to the Waypoint Review page. Press **ENTER/MARK** to add the point to the route. The next field down on the list will automatically highlight.
7. Keep using the methods on steps 4-6 until the desired route points have been entered. Press **QUIT** to return to the Route List page.

Route List Page

The GPSMAP 2006/2010 Route List page displays all the routes currently stored in memory, along with a descriptive name for each route. Once a route has been created, it can be activated and used for navigation with the **NAV** key. A route may be followed in the same sequence as it was originally created, or you can invert the route and navigate from the end waypoint back to the beginning waypoint. From the Route list menu, you may choose 'New Route' (pg 35), 'Copy Route', 'Delete Route', or 'Delete All'.

To activate a route with the NAV key:

1. From any page, press the **NAV** key, then using the **ARROW KEYPAD**, highlight 'Follow Route' and press **ENTER/MARK**. (If you highlight a route from the Route List or Route Review page and press **NAV**, the window will automatically display, 'Follow <the route name>'.)
2. Highlight the route you wish to navigate and press **ENTER/MARK**.
3. If you wish to navigate from the start to the end (reverse) of your route, press the 'Invert' **SOFT KEY**.

To deactivate (stop navigation) of a route:

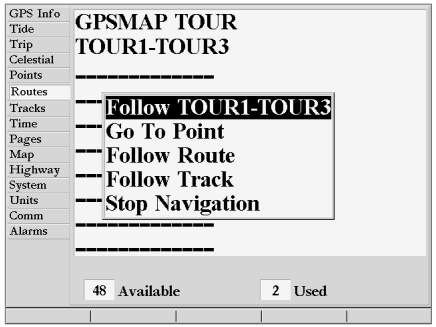
1. Press the **NAV** key, highlight 'Stop Navigation' and press **ENTER/MARK**.

To copy or delete a route:

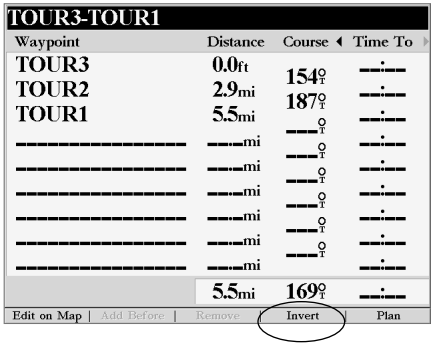
1. From the Route List, using the **ARROW KEYPAD**, highlight the route you want to copy or delete and press **MENU**.
2. Choose either 'Copy' or 'Delete Route' and press **ENTER/MARK** and with "OK" highlighted, press **ENTER/MARK** again to confirm a deletion. Copy will use the same route name with an additional number, starting at 1, at the end of the route name.

To delete all routes:

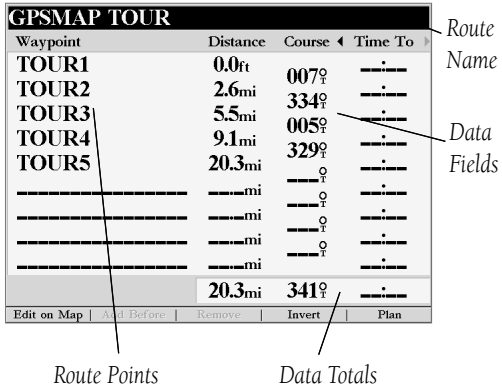
1. From the Route List, press **MENU**.
2. Highlight 'Delete All' and press **ENTER/MARK** and with "OK" highlighted, press **ENTER/MARK** again to confirm the deletion.

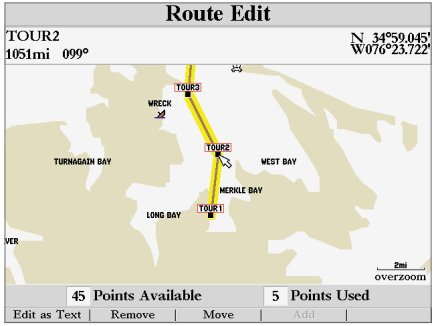


If you highlight a route name from the Route List and press NAV, the name will automatically appear.



'Pressing the "Invert" SOFT KEY will reverse the route.





Highlight a point and press ENTER/MARK to review it.

Route Review Page

Once you have created a route, the Route Review page allows you to review and modify the route displayed.

To get to the Route Review page:

1. Press **MENU**, highlight the 'Route' tab.
2. Highlight the name of the route you wish to review and press **ENTER/MARK**.

The Route Review page also allows you to enter your own 15-character name for any listed route. By default the name includes the first and last waypoints in the route.

To enter a custom route name:

1. From the Route Review page, highlight the name field and press **ENTER/MARK** to begin editing.
2. Use the **DATA ENTRY** keys to enter the desired name and press **ENTER/MARK** when finished.

Once you are on the Route Review page, you may review the route points (waypoints or map items) one at a time from the list:

To review individual route points:

1. Highlight the desired point and press **ENTER/MARK**.
2. On the waypoint review window, you may choose 'Next' (highlight the next point on the route list), 'Show on Map' (show the point on a map window) or 'Delete' (permanently delete the waypoint from the unit) and press **ENTER/MARK**.

Once you are back on the route point list, the next point in the route will automatically be highlighted. This allows you to review each point on the route by pressing only ENTER/MARK repeatedly.

Route Review SOFT KEY Options

SOFT KEY options available from the Route Review page are Edit on Map, Add Before, Remove, Invert and Plan.

Edit on Map— this option allows you to review and/or modify the route points (waypoint or map item) on a map page. You may also use the cursor to insert a new route point on a route leg, review the waypoint or map item.

To edit the route on the map:

1. From the Route Review page, press the 'Edit on Map' **SOFT KEY**.

To edit a route point:

1. Use the **ARROW KEYPAD** to highlight the desired route waypoint.

To review a route point:

1. Highlight the point and press **ENTER/MARK**. Press **ENTER/MARK** again when done.

SOFT KEY editing choices will display, with options for removing, moving (user waypoints only) or adding turns to the beginning or end of the route.

To remove a route point:

1. Press the 'Remove' **SOFT KEY**.

To move a route waypoint:

1. Highlight the 'Move' option and press **ENTER/MARK**.
2. Move the cursor to the new map position and press **ENTER/MARK**.

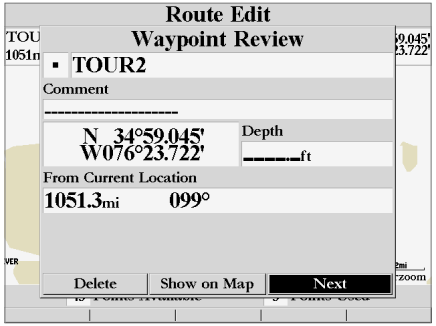
To add turns at the beginning or end of the route:

1. Select the first (to add waypoints to the beginning of the route) or last (to add waypoints to the end of the route) route waypoint with the map cursor.
2. Press the 'Add' **SOFT KEY**.
3. Move the cursor to the new point or position and press **ENTER/MARK**.
4. If you are not inserting an existing waypoint, press **ENTER/MARK** to confirm the new waypoint.
5. Repeat steps 3 and 4 to insert additional waypoints, or press **QUIT** to finish.

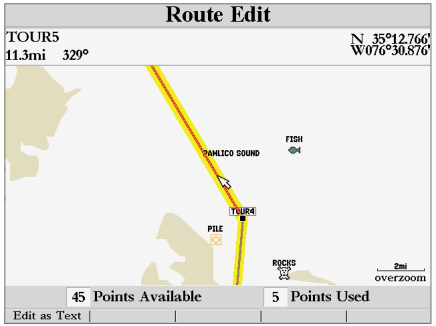
The GPSMAP 2006/2010's route edit mode also allows you to insert a new route waypoint in any route leg using the map cursor.

To insert a new point between two existing route waypoints:

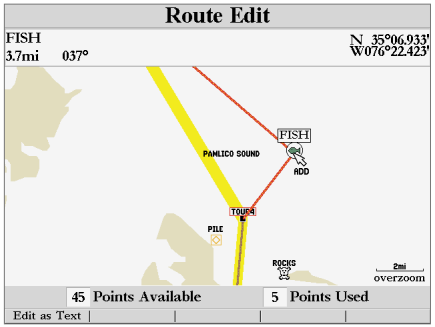
1. Use the **ARROW KEYPAD** to select the leg you want to insert the new waypoint in (the route line will highlight and change to a dotted line (red) when the leg is selected) and press **ENTER/MARK**.
2. Move the cursor to the new map position, existing waypoint, or map item (You will see 'ADD' below the arrow and the route lines will move with the arrow.) and press **ENTER/MARK**.
3. If you are not inserting an existing point, press **ENTER/MARK** to confirm the new waypoint.



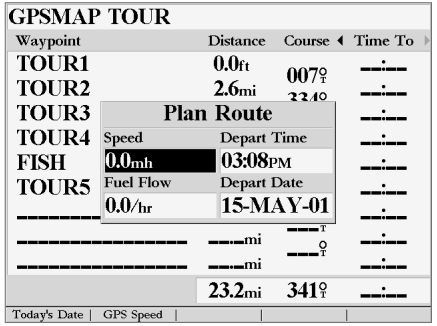
Choose 'Next' to center the map on the next point in the route. You can step through the points by repeatedly pressing ENTER/MARK.



Highlight the route leg on which you wish to insert a waypoint and press ENTER/MARK.



Drag the route leg to an existing waypoint (shown), map item, or a blank spot on the map to create a new route point.



Trip Planning Data Window

Add Before— Allow you to insert a waypoint into the list of route points or add a point(s) onto the end of the route.

To insert a point into the route or add a point to the end:

1. From either the Route Review or Active Route pages, use the **ARROW KEYPAD** to highlight the point you wish to insert the new point before (To add a point to the end, highlight the blank field at the bottom of the list) and press **MENU**.
2. Highlight 'Add Before' and press **ENTER/MARK**.
3. From the 'Find' menu, highlight 'Waypoints' and press **ENTER/MARK**. (You may also choose from other points, such as Cities, Tide Stations, etc. from this list.) From either the "User" or "Nearest From Current Location" tab lists, choose the waypoint you want and press **ENTER/MARK** twice. (See page 28-29 for searching for waypoints by name.)

   To select a waypoint from the map, highlight the 'User' or 'Nearest' tab and press **MENU**. With 'Select From Map' highlighted, press **ENTER/MARK**. Use the zoom **IN** and **OUT** buttons and the **ARROW KEYPAD** to highlight a waypoint on the map and press **ENTER/MARK**.

Remove— Allows you to remove a point (waypoint or map item) from a route. This option is available from both the Route Review and Active Route Pages.

To remove a point from a route:

1. From either the Route Review or Active Route pages, use the **ARROW KEYPAD** to highlight the point to remove and press **MENU**.
2. Highlight 'Remove' and press **ENTER/MARK**.

Invert— Allows you to reverse the order of points in a route. This option is available from both the Route Review and Active Route Pages.

To invert a route:

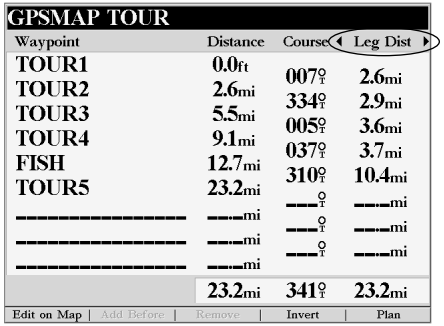
1. From either the Route Review or Active Route pages, press the 'Invert' **SOFT KEY**.
2. Press the 'Invert' **SOFT KEY** again to restore the route points to their original order.

Plan— The Route Review and Active Route pages also display trip-planning information for each leg or the entire route. By entering your estimated speed, Fuel Flow, Departure Date and Time, the unit will calculate your trip information and display it in the data field on the far right of the Route Review and Active Route pages. Available information includes ETA, Fuel (to point), Leg Distance, Leg Fuel, Leg Time, Sunrise and Sunset (at point location) and Time To (point). Distance and Course between legs will automatically be displayed for all route points.

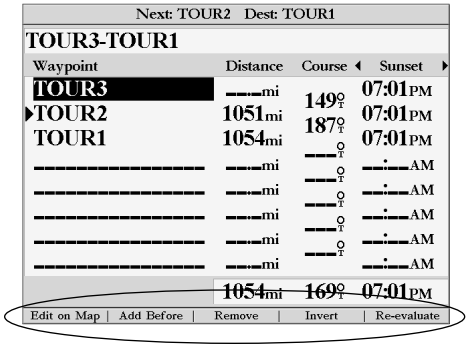
To use the Trip Planning feature:

1. To select the desired planning figure, highlight the desired route from the Route List and press **ENTER/MARK** to display the Route Review page or you if you are already on an active route, press **PAGE** or **QUIT** until the Active Route Page is displayed.
2. One of eight available data types appears to the far right of each route point along with the distance and course. Use the LEFT/RIGHT keys on the **ARROW KEYPAD** to cycle through the data types.
3. To enter planning information, from the Route Review Page only, press the 'Plan' **SOFT KEY**. Enter the figures for Speed, Fuel Flow, Departure Time, and Departure Date. Press **QUIT** to return to the Route Plan Page.

Fuel flow rates on your unit 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 available information for your vehicle (operator's manual, performance specifications, etc.) and make note of the desired units of measure (gallons, liters, etc.).



Press LEFT or RIGHT on the ARROW KEYPAD to change the data types.



Active Route Page and SOFT KEY Options

Active Route Page

Whenever you have activated a route in the GPSMAP 2006/2010 system, the Active Route page shows each point (waypoint or map item) of the active route, with the point name, distance, course and choice of ETA, Fuel to point, Leg Distance, Leg Fuel, Leg Time, Sunrise and Sunset at point location, or Time To point for each point from your present position. The current destination point, the 'active' point, is marked with an arrow icon. As you navigate a route, the waypoint list will automatically update to indicate the next 'active' point first. The Active Route and Route Review pages share many of the same features and options.

The following route options are available from the Active Route page:

- Edit on Map— see pages 38-39 for instructions.
- Add Before— see pages 39 for instructions.
- Remove— see pages 39 for instructions.
- Invert— reverses the direction of the route.
- Re-evaluate— recalculates and reactivates the current route data.

Re-evaluate— reactivates the current route and selects the route leg closest to your current position as the active leg. The active leg defines the current 'from' and 'to' waypoints.

To Re-evaluate an active route:

1. From the Active Route page, press the 'Re-evaluate' **SOFT KEY** to recalculate.

Find

The **FIND** key allows you to search the units for user waypoints, map items and any optional BlueChart or MapSource information loaded on a data card. By pressing the **FIND** key, the unit will search for items from your current location by default or you may also search from other locations. When you press **FIND**, a list of available items to search from will appear. The default items are Waypoints, Cities, Tide Stations and Transportation. Additional items, such as Anchorages, Businesses, Exits, Navaids, Restricted Areas, Wrecks Obstructions, etc., will display depending on the optional BlueChart or MapSource data card inserted into the unit. If you pan around on the Map Page and press **FIND**, the unit will center its search from the point where the cursor is located. When using BlueChart or MapSource data, your position or the map pointer must be within the map outline area to search for information from that area.

To Find a waypoint or other item from your current location:

1 From any page, press **FIND**.

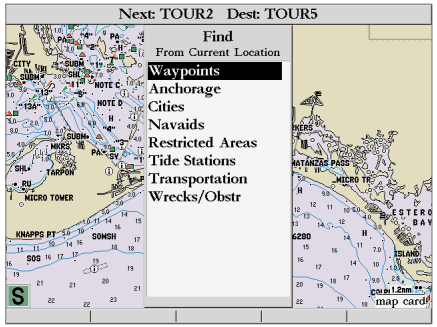
2. Using the **ARROW KEYPAD**, highlight the desired category from the list and press **ENTER/MARK**.
3. For Waypoints and Cities, you may search using 'By Name' or' Nearest'. Use the **ARROW KEYPAD** to highlight the desired tab. For 'By Name', you may use the top field to spell out the name or scroll down through the list. (See also page 29 sidebar for steps on entering a name.)

To Find a waypoint or item from other locations:

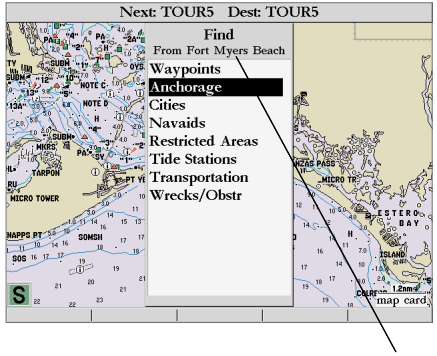
1 From the Map Page, use the **ARROW KEYPAD** to pan to the desired location and press **FIND**.

2. Using the **ARROW KEYPAD**, highlight the desired category from the list and press **ENTER/MARK**.

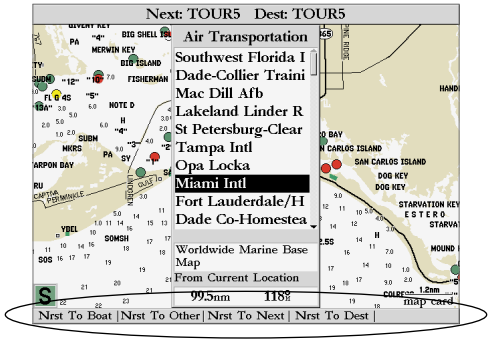
The Find option supports a "find from" feature which allows you to center your search around an item which you have just found using the Find function. For example, you search for 'Restricted Areas" and the search shows an "Anchoring Prohibited" search result. If you press **FIND** again, you will see "From Anchoring Prohibited" as the new search from point. You may also use the Find feature to center your search from any waypoint or route list entry, map item or tide station. Highlight the item you want to Find 'from', and press the **FIND** key.



Find Items List

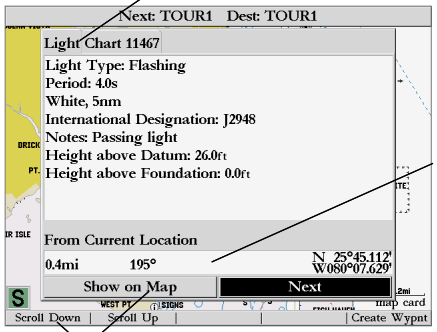


You may also Find from items found on the Find List.



Find Menu SOFT KEY options

Additional Information Tabs



Distance, Bearing, Coordinates of item

Additional Option Options

Additional Information Window

Find Options

Using the Find options, you may search from various map data and utilize a variety of nearest criteria for all items except waypoints. Available Find options are:

- Nrst (Nearest) To Boat— centers search from your boat's current location
- Nrst To Other— allows you to choose another map location from which to search.
- Nrst To Next— centers search from the next point of your active route.
- Nrst To Dest (Destination)— centers search from the last point of your active route.

To Find an item using the Find options:

1 From any page, press **FIND**.

2. Using the **ARROW KEYPAD**, highlight the desired category from the list and press **ENTER/MARK**.

3 From the search results list, press the desired **SOFT KEY** option.

Additional Information

Any item you locate using the Find feature will also have additional information, such as item classification, distance, bearing and coordinates, data source, etc., depending on the type of data on the optional BlueChart or MapSource data card. Tabs will appear at the top of the detail window, along with additional option buttons at the bottom.

To view additional information for a Find item:

1 From the Find search results list, highlight an item and press **ENTER/MARK**.

2 Use the **ARROW KEYPAD** to highlight the individual tabs to display the information and additional options. To scroll up, down, left and right in additional text windows (show notes), highlight the field and press **ENTER/MARK**, the use the **ARROW KEYPAD** to scroll, or press the desired **SOFT KEY** scroll option. You may also choose to create a waypoint using the 'Create Wypnt' **SOFT KEY** option.

Main Menu Page

The GPSMAP 2006/2010's Main Menu Page provides access to various waypoint, system, navigation and interface management, and setup menus in an easy to use "tab" format. The Main Menu page is available from any page in the GPSMAP 2006/2010's system, and is accessed through the **MENU** key. See pages 6-8 for additional instructions changing settings and entering data.

To access the Main Menu Page:

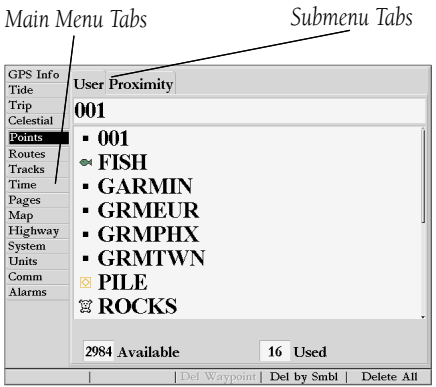
1. Press **MENU**. The 15 Menu tabs are divided into categories by function.

To select a Menu tab from the Main Menu page:

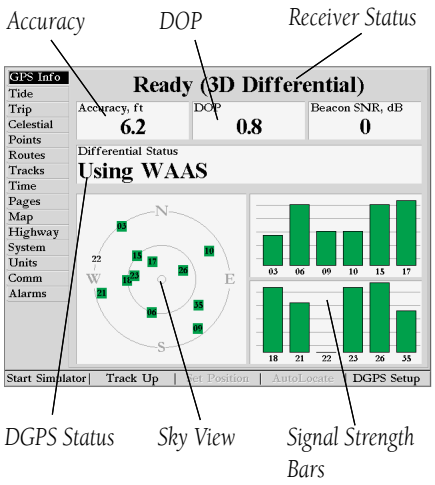
1. Move the **ARROW KEYPAD** UP or DOWN to highlight the tab you want to view. The information for the highlighted tab will automatically appear to the right. If you want to highlight any of the tab items, press to the RIGHT on the **ARROW KEYPAD**, then move UP or DOWN to select individual items.
2. Press either the **SOFT KEYS** for additional submenu options or press **ENTER/MARK** to make changes to the highlighted item. Press LEFT on the **ARROW KEYPAD** to get back to the Menu tab list. Press **QUIT** to the Main Menu page.

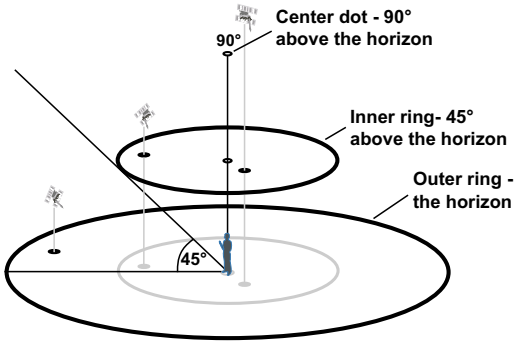
The Main Menu tabs are:

- GPS Info— shows satellite status, accuracy, initialize position.
- Tide— Tide page shows 24 hour tide chart with levels and times.
- Trip— provides trip speeds, odometers, averages, and trip timers.
- Celestial— Celestial page shows sun/moon time cycles and positions
- Points— allows you to create, edit or delete waypoints. See pages 25-30.
- Routes— allows you to create, edit, activate or delete routes. See pages 35-42.
- Tracks— lets you record a track, define how it is recorded and displayed.
- Time— sets up time format, time zones, and daylight savings.
- Pages— enables main pages to be shut off, turned on, or 'jumped to'.
- Map— sets up Map Page features, zooms, and text size. See pages 19-21.
- Highway— sets up Highway Page features. See pages 23-24.
- System— defines beeper and simulator, restores setup, and displays system information.
- Units— defines position format, datum, heading, and distance and speed units.
- Comm— interface settings for use with a PC or second device.
- Alarms— sets up alarms for anchor drag, arrival, off course, and clock.



Main Menu Page





GPS Info Tab— provides a visual reference of satellite acquisition, GPS receiver status, and accuracy. When the unit is powered up, a GPS Info window will appear after the Warning screen. This window will automatically disappear when the unit is ready to navigate. The status information will give you an idea of what the GPS receiver is doing at any given moment. The sky view and signal strength bars give you an indication of what satellites are visible to the receiver and whether or not they are being tracked. The signal strength is shown on a bar graph for each satellite, with the satellite number below. As the receiver locks onto satellites, a signal strength bar will appear for each satellite in view, with the appropriate satellite number underneath each bar. The progress of satellite acquisition is shown in three stages:

- No signal strength bars— the receiver is looking for the satellites indicated.
- Light signal strength bars— the receiver has found the satellite(s) and is collecting data.
- Dark (or green) signal strength bars— the receiver has collected the necessary data and the satellite(s) are ready for use.

As soon as the GPS receiver has collected the necessary data from the best satellites in view to calculate a fix, the GPSMAP 2006/2010 status field will indicate a 2D or 3D status. The unit will then update the position, date and time.

You can use the sky view to help determine if any satellites are being blocked, and whether you have a current position fix (indicated by a '2D','2D Differential','3D', or '3D Differential' in the status field). The sky view shows a bird's-eye view of the position of each satellite relative to the GPS antenna's last known position. The outer circle represents the horizon (north up), the inner circle 45º above the horizon, and the center point a position directly overhead. You can also set the sky view to a 'Track Up' configuration, causing the top of the sky view to align along your current track heading.

WAAS Capability

The GPSMAP 2006/2010 is capable of receiving WAAS (Wide Area Augmentation System) satellite signal input. WAAS is an FAA (Federal Aviation Administration) funded project to improve the overall accuracy and integrity of the GPS signal for aviation use, but land/sea based users may also benefit from this system. At this time, the system is still in the development stage and is not fully operational. There are currently two WAAS satellites that can be received in the U.S.A., one over the Atlantic Ocean and one over the Pacific Ocean, in a geo-stationary orbit over the equator. Effective use of the WAAS satellite signal

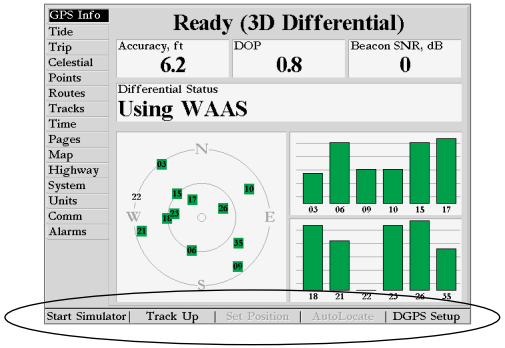
may be limited by your geographic location in relation to those satellites, now in developmental service. WAAS satellite signal reception requires an absolute clear view of the sky and works best when there are no nearby obstructions such as buildings, mountains, etc. WAAS satellites will be numbered 33 or higher when viewing the sky view on your GPSMAP 2006/2010. Initial reception of the WAAS signal may take up to 15-20 minutes each day, then 1-2 minutes afterwards. When WAAS differential correction has been received for GPS satellites (numbers 32 or below), '2D or 3D Differential' will appear in the receiver status. To learn more about the WAAS system, its satellite positions and current state of development, visit the FAA web site (http://gps.faa.gov).

Receiver Status, Accuracy and DOP

Receiver status is indicated at the top field of the page, with the current Accuracy, Dilution Of Precision (DOP) and, if equipped with an optional Differential Beacon receiver, Beacon SNR (Signal Noise Ratio) above the sky view. DOP is an indication of satellite geometry quality measured on a scale of one to ten (lowest numbers the best, highest numbers the poorest). Accuracy uses DOP and other factors to calculate horizontal position accuracy in feet or meters. The status field will show one of the following conditions:

- Waiting for GPS Antenna— the GPS receiver is looking for and collecting data from satellites visible at its last known or initialized position, but has not collected enough data to calculate a fix or a GPS receiver is not connected.
- Ready (2D)— at least three satellites with good geometry have been acquired and a 2 dimensional position fix (latitude and longitude) is being calculated. '2D Differential' will appear when you are receiving DGPS corrections in 2D mode.
- Ready (3D)— at least four satellites with good geometry have been acquired and your position is now being calculated in latitude, longitude and altitude. '3D Differential' will appear when you are receiving DGPS corrections in 3D mode.
- Lost Position from GPS Antenna— the GPS receiver is no longer tracking enough satellites for a 2D or 3D fix or connection has been lost between the GPS receiver and the 2006/2010.
- Simulating— the 2006/2010 is in simulator mode.
- GPS Antenna is Simulating— the 2006/2010 is receiving simulated NMEA input information.

Since the 2006/2010 can receive position information from a non-GARMIN NMEA source, it is possible to have a "'Ready (2D) or (3D)" status with no satellite data.



GPS Info tab SOFT KEY Options

The Differential Receiver status will show one of the following:

- None— No optional beacon receiver attached or enabled in the DGPS Setup.
- Searching For WAAS— WAAS is enabled and the GPS receiver is searching for WAAS signal
- Using WAAS— WAAS capability enabled and unit receiving WAAS corrections
- No Beacon Signal— Beacon receiver attached, but not transmitting RTCM data to GPS receiver
- Tuning Beacon— Receiver is tuning manual Beacon frequency
- Receiving Beacon— Unit is receiving Beacon corrections
- Scanning Beacon— Beacon receiver is scanning for available frequency
- Check Wiring— GPS receiver is not making connection with the Beacon receiver.

The Differential SNR (Signal to Noise Ratio) indicates, on a scale to 0-30db with 30db being the best, the strength of the Beacon signal being received. The SNR will depend upon the mounting of your Beacon receiver and the distance from the Beacon transmitting station. The DGPS beacon transmitters are operated by the U.S. Coast Guard (or similar government agency in other countries), which is responsible for their accuracy and maintenance. For DGPS beacon transmitter problems or to find the most updated list of frequencies and coverage areas, contact your local USCG, or see their web site at http://www.navcen.uscg.mil/

The GPSMAP 2006/2010's GPS Info tab provides access to additional **SOFT KEY** options. The available **SOFT KEY** options are

- **Start/Stop Simulator—** toggles the unit simulator on or off.
- **Track Up/North Up—** selects between a north up or track up sky view display for the GPS Info Page only.
- **Set Position—** initializes the receiver graphically on the Map Page to initially help the receiver acquire more quickly. If the simulator is enabled, this field will change to 'Simulator Setup'. See pages 12-13 for instructions on initialization and page 5 for simulator settings.
- **AutoLocate—** allows the GPS receiver to locate your position automatically. This process can take up to five minutes. See pages 12-13 for instructions on initialization.

• **DGPS Setup—** set up of tuning options for a DGPS receiver or enabling/disabling WAAS. The 'DGPS Setup' window contains the fields to select the Differential Source, Beacon tune mode, Frequency and Bit Rate. Additional data windows will display the Beacon SNR and Differential Status. When "Differential Source" is set to 'Auto', the unit can receive WAAS or USCG DGPS Beacon (if available) input. If WAAS is being used and valid USCG DGPS input is detected, WAAS will be automatically disabled. Set the option to 'Beacon' if you wish to receive USCG DGPS Beacon information only, 'WAAS' if you wish to receive WAAS information only or to 'None' if no DGPS input is desired. The additional USCG DGPS Beacon tuning options will only appear when "Differential Source" is set to 'Auto' or 'Beacon'. You may have the DGPS beacon receiver (if capable) automatically scan for the DGPS beacon signal or you can manually enter the beacon frequency and bit rate on the unit to tune the beacon receiver.

To have the beacon receiver automatically scan for a frequency:

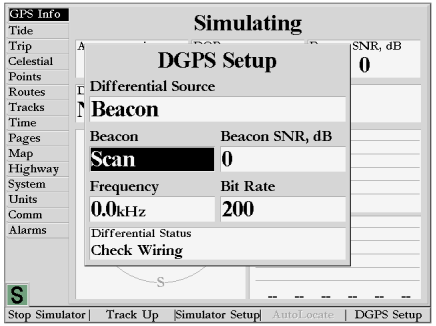
1. With the unit set to 'Auto' or 'Beacon', use the **ARROW KEYPAD** to highlight the "Beacon" field and press **ENTER/MARK**.
2. Highlight 'Scan' and press **ENTER/MARK**. The numbers in the "Frequency" field will change as the unit scans from 284 kHz to 325 kHz, 200 bit rate, then 100, at 6-second intervals.

To restart the scan:

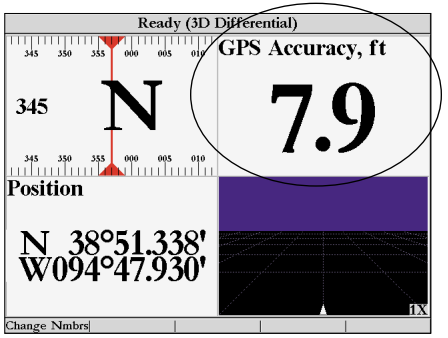
1. Press the 'Restart Scan' **SOFT KEY**.

To manually enter a frequency and bit rate:

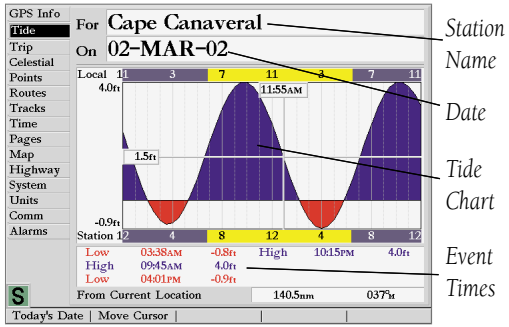
1. With the unit set to 'Auto' or 'Beacon', use the **ARROW KEYPAD** to highlight the "Beacon" field and press **ENTER/MARK**.
2. Highlight 'User' and press **ENTER/MARK**.
3. Highlight the "Frequency" or "Bit Rate" field, press **ENTER/MARK**, then enter a frequency or bit rate and press **ENTER/MARK** when done.



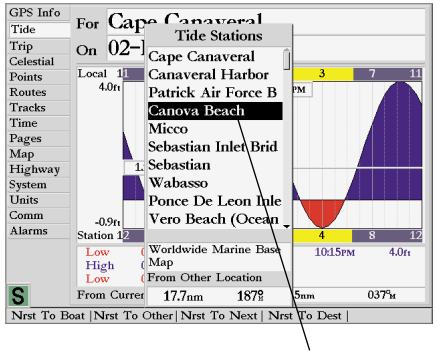
DGPS Setup Window



You may also select 'GPS Accuracy' to display in any data field. See pages 16-18 for instructions changing data fields.



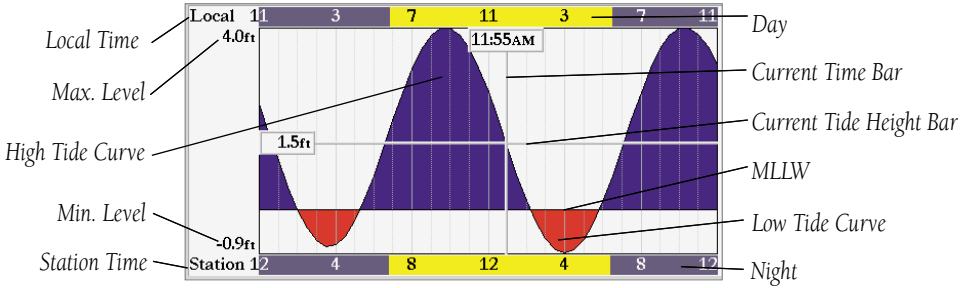
Tide Tab



You can select from a list of nearest stations.

Tide Tab— shows a graphical chart which displays tide station information in a 24 hour span starting at midnight station time. You can choose from different dates and over 3000 tide stations around the USA coastline, Alaska, Hawaii, western Canada and several of the Caribbean islands.

The top of the page displays the tide station being referenced, below that the date. The top of the chart shows a 24-hour block of local time (LCL) for your position, with the reported station time (STA) appearing at the bottom. Daylight (light or yellow bar) and nighttime (dark or blue bar) show across the time scale, with the time progressing from left to right. (Local time scales and sunrise/sunset info may not be available for a few stations). The solid, light vertical lines are in 4-hour increments, and the light, dotted vertical lines are in 1-hour increments. A solid, vertical line (with the current time box at the top) will indicate the time of day when using current date and will intersect the tide graph to show their relation.



The tide curve shows as a shaded area, with higher tides (blue) being taller and lower tides shorter. The solid, horizontal line (with the current tide box on the left) indicates the current tide height. The figure to the left of the line will show the current tide level in the depth units specified on the Units tab. The MLLW appears as a solid, horizontal line near the bottom of the chart (This line will only appear if the tide ranges to the zero value or below). Tides curves below MLLW will appear in red on color models The numbers directly below/above 'LCL' and 'STA' indicate the maximum/minimum levels, respectively. The data fields below the chart, indicate event times and levels at which the tide changes starting in the upper left field, going downward, then to the upper right and down again.

To select the nearest tide station from your current location:

1. From the "Tide" tab, highlight the 'At' field and press **ENTER/MARK**.
2. Highlight the desired station of the list and press **ENTER/MARK** twice.

If you are not within range of a tide station, you will see a message "None Found". Use the 'Nearest To Other' Find option and select a location on the map which is closer to a tide station.

To select a tide station from the map:

1. From the Tide tab, press **FIND**.
2. When the search results appear, press the 'Nrst To Other' **SOFT KEY**.
3. Select a position on the map and press **ENTER/MARK**.
4. A list will appear showing the nearest tide stations. Highlight the desired station and press **ENTER/MARK**, then highlight 'Show Chart' and press **ENTER/MARK**. If the "None Found" message appears, repeat steps 1-4 until you find a station.

You may also change the date to see tide charts for other days.

To change the date for the tide chart:

1. Using the **ARROW KEYPAD**, highlight the "On" field and press **ENTER/MARK**.
2. Enter the desired date using the **DATA ENTRY** keys and press **ENTER/MARK**.

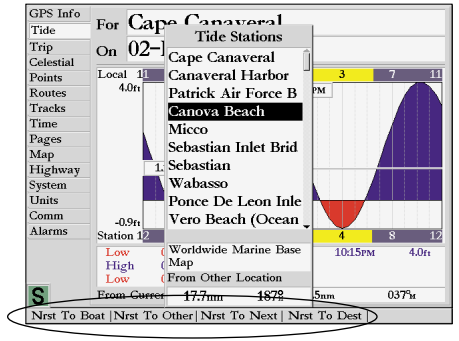
To use the current date:

1. Press the 'Today's Date' **SOFT KEY**.

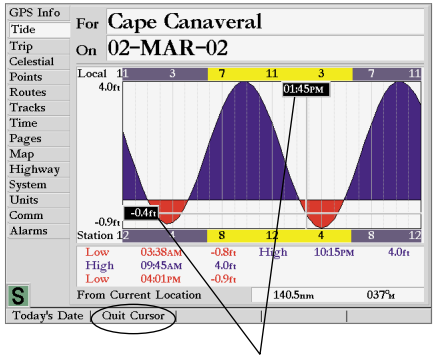
You may move the time bar on the tide chart in 5 minute increments to show tide heights at various times on the chart.

To see tide heights at various times on the chart:

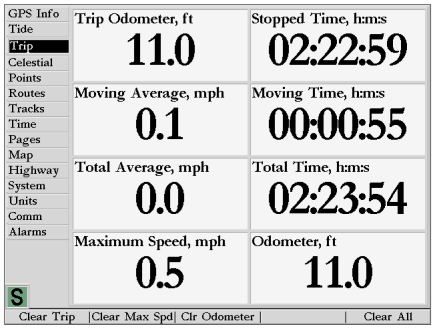
1. Press the 'Move Cursor' **SOFT KEY**.
2. Press LEFT or RIGHT on the **ARROW KEYPAD** to change the time. Press **QUIT** when done or press the 'Quit Cursor' **SOFT KEY**.



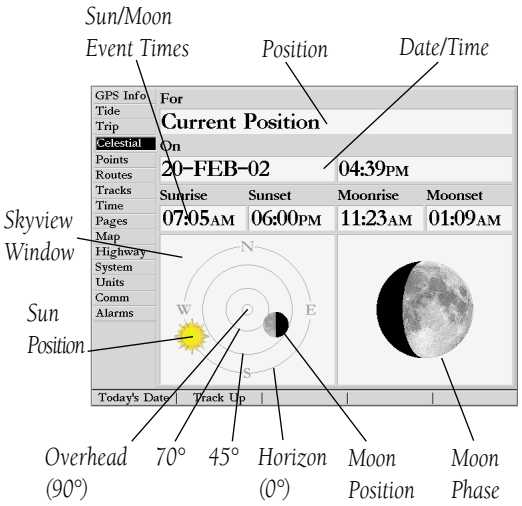
You may automatically search for the nearest station using a variety of search locations..



You may move the cursor to see tide heights at different times. Tide data will show in a black box when in cursor mode.



Trip tab



Trip Tab— displays Trip Odometer, Moving Average speed, Total Average speed, Maximum Speed, Stopped Time, Moving Time, Total Time, and Odometer data. You may reset the data by pressing the 'Clear Trip', 'Clear Max Spd', 'Clear Odometer', or 'Clear All' **SOFT KEY** options.

Celestial Tab— displays celestial data for sun and moon rise/set, moon phase, and approximate skyview location of the sun and moon. The moon phase will display the approximated current visible portion of the moon. You may display this data for your current GPS position or a point location. Also, you may select a different date and time, use the current date, or change the orientation of the skyview.

To choose a position from a waypoint:

1. From the Celestial tab, highlight the 'Position' field and press **ENTER/MARK**.
2. From the Find list highlight 'Waypoints' and press **ENTER/MARK**. Select a waypoint from the "User" or "Nearest From Current Location" tab lists and press **ENTER/MARK** twice.

To choose a position from the map:

1. From the Celestial tab, highlight the 'Position' field and press **ENTER/MARK**.
2. From the Find list highlight 'Other Position' or any category (except Waypoints) and press **ENTER/MARK**. To return to the current position, choose 'Current Position' from the Find list.
3. When the search result appear, press the 'Nearest To Other' **SOFT KEY**, then select a position on the map and press **ENTER/MARK**. When the search results appear, highlight the desired location and press **ENTER/MARK** twice.

The location the unit is using will appear in the Position field. The timetables displayed will be based upon your current time zone. When using a position from another location outside of your time zone, you will need to set the Time Zone for that location under the "Time" tab on the Main Menu (see page 54).

To change the time or date:

1. From the Celestial tab, use the **ARROW KEYPAD** to highlight the date or time and press **ENTER/MARK**.
2. Enter a new date or time using the **DATA ENTRY** keys and press **ENTER/MARK**.

To use current date and time:

1. From the Celestial tab, press the 'Today's Date' **SOFT KEY**.

To change the skyview orientation to 'Track Up' or 'North Up':

1. From the Celestial tab, press the 'Track Up' or 'North Up' **SOFT KEY** as desired.

Track Tab— lets you specify whether or not to record a track log (an electronic 'breadcrumb trail' recording of your path), define how it is recorded, or save track log data for future use. The Track Logs Page also provides an indicator of the memory used for the active track log and options to clear the track memory or start a TracBack route. See pages 32-33 for TracBack information. The Track submenu is divided in two tabs: 'Active' tab and the 'Saved' tab.

The 'Active' tab is for the active log (the log currently being recorded). It displays track memory used and current settings.

The 'Saved' tab displays and manages a list of any saved track logs, allows TracBack activation, map display of saved logs. The active log stores up to approximately 5,000 track log points, based upon the criteria specified in the Track settings. Up to 20 track logs may be saved in memory, with up to 1000 track log points in each saved log.

For the 'Active' tab, the following settings are available:

- Record Mode— lets you select one of three track recording options:

  Off— No track log will be recorded. Note that selecting the 'Off' setting will prevent you from using the TracBack feature.

  Fill— a track log will be recorded until the track memory is full.

  Wrap— A track log will be continuously recorded, wrapping through the available memory (replacing the oldest track data with new data).

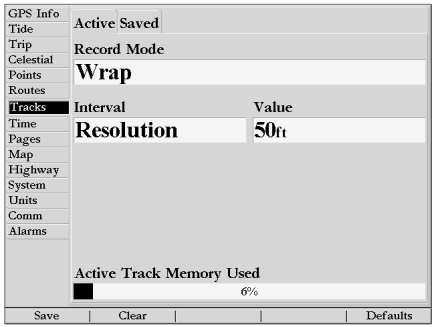
- Interval— defines the frequency at which the track plot is recorded. Three interval settings are available:

  Distance— records track based on a user-defined distance between points.

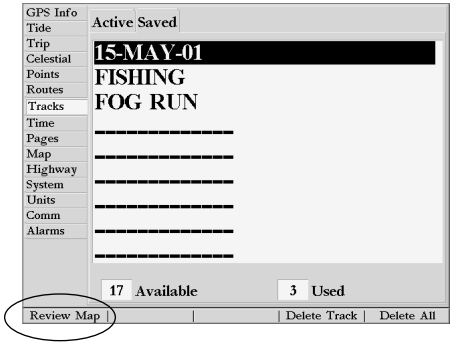
  Time— records track plot based on a user-defined time interval.

  Resolution— records track plot and will automatically optimize the number and frequency of track points depending on the complexity of the route. The resolution option is the default setting and is recommended for the most efficient use track performance. The distance value (entered in the value field) will determine the sensitivity of route changes. A higher value will produce a less sensitive or detailed track and a lower value, a more sensitive or detailed track.

- Value— defines the distance or time used to record the track log.

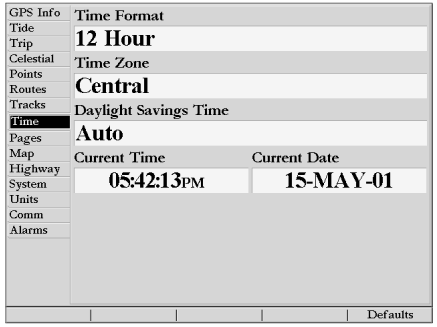


Active Track Tab



You can use the 'Review On Map' option to display a saved track on a Track Map Page.

The track name will automatically appear when highlighted on the 'Saved' list and NAV is pressed.



Time Tab

For the 'Active' tab, the following **SOFT KEY** options are available:

- Save— allows you to save the current active track log.
- Clear— allows you to clear the active track log currently stored in memory.
- Defaults— restores the Tracks tab settings to original factory settings.

For the 'Saved' tab, the following **SOFT KEY** menu options are available:

- Review Map— displays the saved track log on a Track Map page.
- Delete Track— deletes highlighted saved track log from memory.
- Delete All— deletes all saved track logs from memory.

You may also activate a TracBack from any of the saved tracks on this tab.

To activate a TracBack from the 'Saved' tab list:

1. Using the **ARROW KEYPAD**, highlight the track you wish to use for a TracBack and press **NAV**.
2. The 'Follow <track name>' will automatically appear highlighted. Press **ENTER/MARK**.

Time Tab— displays the current time and date, allows you to adjust the 12 or 24 hour time format, enter a time zone and adjust for daylight savings to show correct local time. The unit must be receiving valid NMEA position data to display the proper time and date.The following options are available:

- Time Format— choose from 12 or 24 hour (military) time format.
- Time Zone- choose your correct time zone to show correct local time or enter a UTC Offset. The UTC (also called Greenwich Time) offset is how many hours you are ahead or behind the time line. See the table on page 62 for time offsets.
- Daylight Savings— choose from 'Auto', 'On', or 'Off' to adjust for daylight savings.

Pages Tab— allows you to turn on/off the GPS Info on power-up or any of the main pages or 'Jump To' a particular main page. You may also set which page appears first when you power the unit on.

To select/deselect a main page:

1. Use the **ARROW KEYPAD** to highlight the box to the left of the page name. Pressing **ENTER/MARK** will select/deselect that page. When a page is selected a '✓' will appear in the box. You must leave at least one page checked.

You may also choose from one of the following **SOFT KEY** options:

- All Pages— selects all pages.
- Chart Plotter— selects Map page only.
- Nav Tools— selects Compass, Numbers, Highway, and Active Route pages only.
- Defaults— selects all pages.

To 'Jump To' a specific page:

1. Use the **ARROW KEYPAD** to highlight the 'Jump To' option to the right of the desired page and press **ENTER/MARK**.

To set the First Page:

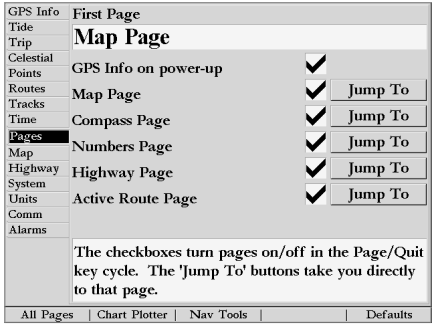
1. Use the **ARROW KEYPAD** to highlight the 'First page' option and press **ENTER/MARK**. Highlight the page you wish to appear first and press **ENTER/MARK**.

System tab— controls system setting for beeper, speed filter, languages, system mode, simulator controls, restores factory settings, and displays system information.

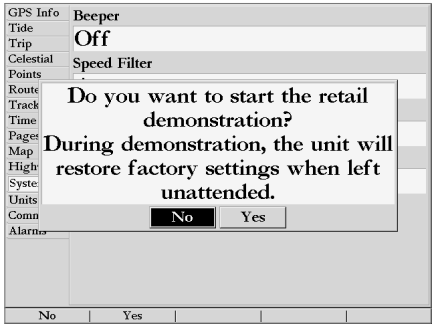
The following settings are available:

- Beeper— controls audible beep. Select from 'Off', 'Alarms Only' (sounds for alarms/messages), 'Key and Alarm' (sounds for key presses and alarms/messages).
- Speed Filter— averages speed-readings. Choose from 'Off', 'Auto' (automatically controls filtering), or 'On' (allows you to enter a value from 1 to 255 seconds).
- Language— select from various languages for the unit's on-screen display.
- System Mode— select from 'Normal' (Normal Navigation) or 'Simulator' (For practice ONLY)
  - Current Time/Date*— lets you enter a current time and date.
  - Track Control*— 'Auto Track' will steer to the current navigation point. 'User Track' allows you to enter a heading in the 'Track' field.
  - Speed*— lets you enter a speed.
  - Track*— lets you enter a heading.
  - Set Position*— **SOFT KEY** option allows to set your location while in simulator mode. Press the 'Set Position' **SOFT KEY**, then point to the desired position on the map and press **ENTER/MARK**.

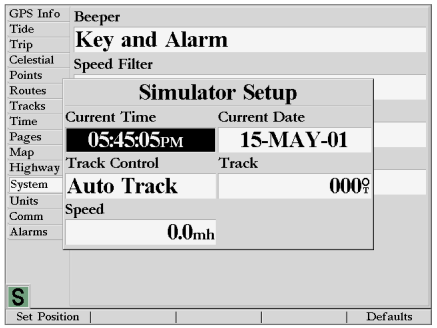
* These fields will only appear in the "Simulator Setup" window when the unit is in Simulator Setup Mode.



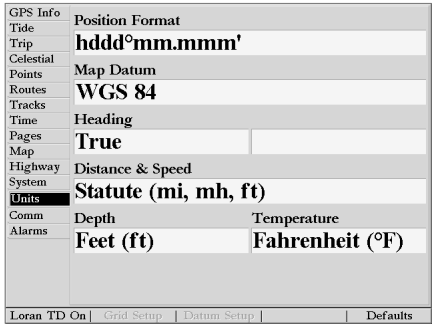
Pages Tab



Retail Demonstration Mode will restore the factory settings to the unit if left unattended for over 2 minutes. This mode should be used for display purposes. User waypoints will NOT be deleted.



System Tab- Simulator Mode Setup



Units Tab

The following **SOFT KEY** options are also available from the "System" tab:

- System Info— displays the unit's software, basemap version and electronic serial number.
- Setup Simulator— displays simulator options (only available when in simulator mode) See page 5.
- Factory Setup— restores all settings to GARMIN's original setup values for the entire unit.
- Defaults— restores settings on System page to default values.

Units Tab— defines Position Format, Map Datum, Heading, Distance, Speed, Altitude, Depth and Temperature.

The following settings are available:

- Position Format— is used to change the coordinate system in which a given position reading is displayed. You should only change the position format if you are using a map or chart that specifies a different position format or wish to use a format you are familiar with. The default format is latitude and longitude in degrees, minutes, and thousandths of a minute (hddd°mm.mmm'). The following additional formats are available:
  - hddd.ddddd°— latitude/longitude in decimal degrees only
  - hddd°mm'ss.s"— latitude/longitude in degrees, minutes, seconds
  - UTM/UPS— Universal Transverse Mercator / Universal Polar Stereographic grids
  - British Grid
  - Dutch Grid
  - Finnish KKJ27
  - German Grid
  - India Zones
  - Irish Grid
  - Loran TD
  - Maidenhead
  - MGRS
  - New Zealand
  - Qatar Grid
  - RT90
  - Swedish Grid
  - Swiss Grid
  - Taiwan Grid
  - User Grid
  - W Malayan RSO

For additional information on Loran TD setup, see pages 58-59.

- Map Datum— allows you to manually select the datum reference used to determine a given position. The default setting is 'WGS 84'. The unit will automatically choose the best datum depending upon your chosen position format. Datums are used to describe geographic positions for surveying, mapping, and navigation and are not actual maps built in the unit. Although over 100 datums are available (as listed on pages 65-66), you should only change the datum if you are using a map or chart that specifies a different datum.

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

- Heading— lets you select the reference used in calculating heading information. You can select from 'Auto Mag Var', 'True', 'Grid' and 'User Mag Var'. 'Auto Mag Var' provides magnetic north heading references which 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 described on page 56). '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.

To enter a user defined magnetic variation:

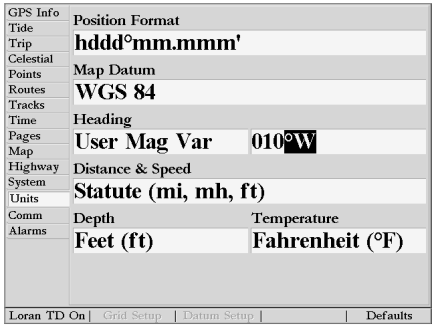
1. With the "Heading" field set to 'User Mag Var', highlight the heading reference field (immediately to the right) and press **ENTER/MARK**.
2. Use the **DATA ENTRY** keys to enter the magnetic variation at your current position and press **ENTER/MARK**.

WARNING: If 'User Mag Var' is selected, you must periodically update the magnetic variation as your position changes. Using this setting, the unit will not automatically calculate and update the magnetic variation at your present position. 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.

- Distance, Speed and Altitude— lets you select the desired units of measure for distance, speed and altitude readouts in 'Nautical' (nm, kt, ft), 'Statute' (mi, mh, ft) or 'Metric' (km, kh, m) terms.
- Depth— lets you select the desired units of measure for depth in Feet (ft), Fathoms (fa) or Meters (m).
- Temperature— lets you select the desired units of measure for temperature in Fahrenheit (°F) or Celsius (°C).

The Units tab settings will affect how navigation information is displayed on the GPSMAP 2006/2010. The 'User' datum is based on a WGS-84-Local datum and is an advanced feature for unlisted or custom datums. Setup is available for each by pressing the appropriate SOFT KEY option. To learn more, check your local library or the world wide web for educational materials on datums and coordinate systems. When in doubt, seek assistance.

If you are using a map or chart in conjunction with your GPS, make sure the settings under the 'Units' tab of the GPSMAP 2006/2010 match that of the map or chart. This information should be displayed somewhere on the map or chart. If the information is not present, contact the map or chart maker to determine what position format, datum, heading and units of measure are being used for the map or chart.



You may manually enter a magnetic variation.

Loran TD System

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 U.S. 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 GPSMAP 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 meters. When the unit is placed in the LORAN TD format mode, it simulates the operation of a LORAN receiver. Position coordinates may be displayed as TDs, and all navigation functions may be used 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 Setup TD 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 in the Setup TD field. If you enter a different LORAN chain number, change the secondary stations or offsets in the Setup TD field, the active waypoint information will reflect those changes. Since the GPSMAP unit 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.

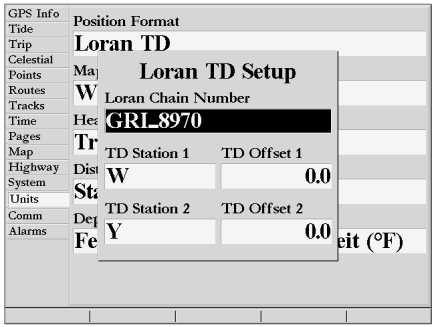
The LORAN Position Format field is located under the Units tab in the Main Menu. The 'LORAN TD Setup' window contains the fields to select the Loran GRI-Chain Number, Primary and Secondary Stations, and TD Offsets.

To setup Loran TD from the Main Menu:

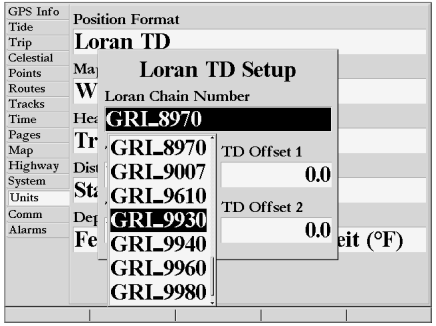
1. Using the **ARROW KEYPAD**, highlight the "Units" tab and then the "Position Format" field press **ENTER/MARK**. You may also press the 'Loran TD On' **SOFT KEY** from the "Units" tab .(If you use 'Loran TD On', skip to step 3.)
2. Highlight 'Loran TD', press **ENTER/MARK**, then press the 'Grid Setup' **SOFT KEY**.
3. To change the settings of any of the five fields, highlight the field, press **ENTER/MARK**, select/enter the desired setting using the **DATA ENTRY** keys and press **ENTER/MARK**.
4. When done, press the **QUIT** key to return to the Main Menu.
5. To return to the previous position format, press the 'Loran TD Off' **SOFT KEY**.

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. Remember that the GPS is not relying on the LORAN signal for navigation and actually converts the TD coordinate to a useful LAT/LON coordinate (in the background) 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.

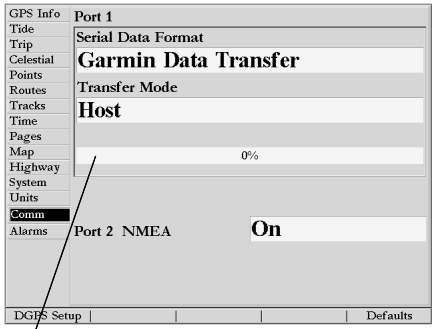
For more information on Loran TDs, you may download GARMIN's "Loran TD Position Format Handbook" from the GARMIN web site at http://www.garmin.com/support/userManual.html.



Loran TD Setup Page

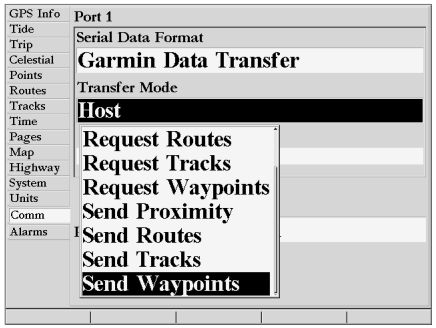


Selecting the Loran Chain Number.



Data Transfer Progress

Comm Tab



When transferring data between two GARMIN units, be sure to always set one to 'Host' and use the other unit to either Send or Request the desired data.

Comm (Communications) tab— lets you control the input/output format used when connecting your GPSMAP 2006/2010 to external NMEA devices, a personal computer, another Garmin GPSMAP 2006/2010, etc. See the GPMSMAP 2006/2010 Installation Guide for wiring instructions. You can download a copy of GARMIN's proprietary communication protocol from the Help and Support section of our web site at www.garmin.com. The unit supports two user input/output ports. Individual Port settings are:

Port 1—

- Garmin Data Transfer— the proprietary format used to upload/download MapSource data, exchange waypoint, route, track, almanac, and proximity data with a PC or another GARMIN GPSMAP 2006/2010. When you select 'Garmin Data Transfer', there are 11 Transfer Modes to choose from: Host, Request Almanac, Request Proximity, Request Routes, Request Tracks, Request Waypoints, Send Almanac, Send Proximity, Send Routes, Send Tracks and Send Waypoints.
- NMEA In/NMEA Out— supports the output of standard NMEA 0183 version 2.3 data, and sonar NMEA input support for the DPT, MTW and VHW sentences. (see page 70)
- None— provides no interfacing capabilities.

Port 2—

- NMEA On/NMEA Off— supports the output of standard NMEA 0183 version 2.3 data, and sonar NMEA input support for the DPT, MTW and VHW sentences. (see page 70)

To select an input/output format:

1. Highlight the "Serial Data Format" or "Port 2 NMEA" field and press **ENTER/MARK**.
2. Use the **ARROW KEYPAD** elect the desired setting and press **ENTER/MARK**.

To select a transfer mode:

1. Use the **ARROW KEYPAD** to select 'Garmin Data Transfer' in the "Serial Data Format" field.
1. Highlight the 'Transfer Mode' field and press **ENTER/MARK**.
2. Use the **ARROW KEYPAD** to select the desired setting and press **ENTER/MARK**.

To restore the Serial Data Format settings back to the default 'Garmin Data Transfer':

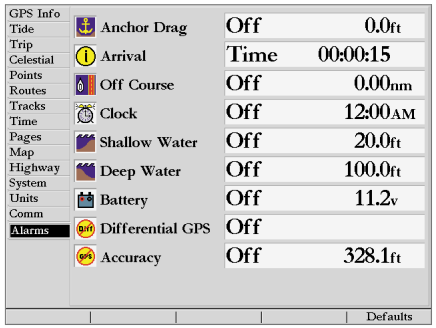
1. From the Comm tab, press the 'Defaults' **SOFT KEY**.

Alarms Tab— allows you to define the alarm setting for Anchor Drag, Arrival, Off Course, Clock, Shallow Water, Deep Water, Battery, DGPS and Accuracy.

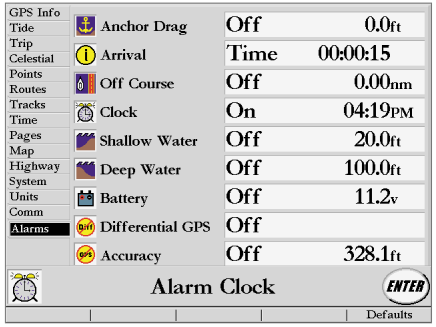
- Anchor Drag— sets an alarm to sound when you've exceeded a specified drift distance. Enter a value in the distance field and use the control field to turn the alarm on and off.
- Arrival— sets an alarm to sound when you're a specified distance or time away from a destination waypoint. Enter a distance radius or time for sounding the alarm and use the control field to set the alarm to 'Off', 'Dist' (Distance), or 'Time'.
- Off Course— sets an alarm to sound when you're off a desired course by a specified distance. Enter a distance in the distance field and use the control field to turn the off course alarm on and off.
- Clock— provides an alarm for the system clock. Enter a time in the time field and turn the alarm on and off from the control field menu. Remember to enter alarm times in the same time format (UTC or local) you're using for your system. The unit must be on for the clock alarm to work.
- Shallow Water/Deep Water— set alarms to sound when you enter an area of specified depth that is too shallow and/or too deep. Enter a depth in the distance fields and use the control fields to turn the alarms on and off. You must be receiving sonar NMEA data (pg. 60) for this function to work.
- Battery— sets an alarm to sound when the battery is reaching a critical state of discharge.
- Differential GPS (DGPS) — DGPS alarm will sound when the unit loses a differential fix.
- Accuracy — alarm will sound when the GPS position accuracy falls outside the user-set value.

To set an alarm:

1. Use the **ARROW KEYPAD** to highlight the field to the right of the alarm name you wish activate and press **ENTER/MARK**.
2. Change the mode to 'On' (Dist or Time for the 'Arrival' alarm) and press **ENTER/MARK**.
3. Highlight the next field to the right and press **ENTER/MARK**, then enter the desired settings and press **ENTER/MARK** to finish.



Alarms Tab



Press ENTER/MARK to acknowledge an alarm.

Appendix A
Time Offsets

A simple way to determine your local time offset is how many hours you are behind or ahead of UTC (also called 'Greenwich' or 'zulu' time).
Example: EST (Eastern Standard Time) is 5 hours behind UTC, so your offset would be -5. Adding one hour for daylight savings would make EDT (Eastern Daylight Time) - 4. Subtract an hour for each time zone as you travel west.

Offsets for Continental U.S. would be:

EST	*-5*	*EDT*	*-4*
CST	*-6*	*CDT*	*-5*
MST	*-7*	*MDT*	*-6*
PST	*-8*	*PDT*	*-7*

The chart below gives an approximate UTC (Universal Time Coordinate) time offset for the various longitudinal zones. Check with local charts for more detailed information. If you are in daylight savings time, add one hour to the offset.

Longitudinal Zone	Offset	Longitudinal Zone	Offset
W180.0º to W172.5º	-12	E007.5º to E022.5º	+1
W172.5º to W157.5º	-11	E022.5º to E037.5º	+2
W157.5º to W142.5º	-10	E037.5º to E052.5º	+3
W142.5º to W127.5º	-9	E052.5º to E067.5º	+4
W127.5º to W112.5º	-8	E067.5º to E082.5º	+5
W112.5º to W097.5º	-7	E082.5º to E097.5º	+6
W097.5º to W082.5º	-6	E097.5º to E112.5º	+7
W082.5º to W067.5º	-5	E112.5º to E127.5º	+8
W067.5º to W052.5º	-4	E127.5º to E142.5º	+9
W052.5º to W037.5º	-3	E142.5º to E157.5º	+10
W037.5º to W022.5º	-2	E157.5º to E172.5º	+11
W022.5º to W007.5º	-1	E172.5º to E180.0º	+12
W007.5º to E007.5º	0		

The GPSMAP 2006/2010 uses an on-screen pop-up message system to alert you to unit operating characteristics. Press the **ENTER** key to acknowledge and return to the page you were viewing.


Alarm Clock— The alarm clock has sounded.

Alarm Voltage Too High— Specified voltage is too high, set to a lower value.

Alarm Voltage Too Low— Specified voltage is too low, set to a higher value.


Anchor Drag Alarm— You have drifted out of the specified distance range.

Approaching Waypoint— You are a specified alarm distance from a destination waypoint.

Arrival At Waypoint— You have arrived at the destination waypoint.


Battery Alarm—Specified amount of input voltage has been detected.

Can't Unlock Maps— Data on data card is not unlocked for the unit. Contact your dealer or GARMIN.

Database Error— Tried to use an invalid or unavailable database point.


Deep Water Alarm —Specified deep water alarm depth has been detected below the transducer.


GPS Antenna Failure, Antenna Needs Repair— GPS receiver problem. Contact your dealer or GARMIN.

GPS Antenna Has Lost Its Stored Settings— GPS receiver problem. Contact your dealer or GARMIN.

Lost Position From GPS Antenna— The unit has lost satellite signals. Check antenna connections or try moving to a location with a clear view of the sky.

No DGPS Position— No differential correction data is available or not enough data is available to compute a DGPS position.


Off Course Alarm— You have exceeded the specified off-course distance.


Proximity Alarm— You have entered the alarm radius for the proximity waypoint indicated.

Proximity Alarm Memory is Full— You have used all ten proximity waypoints.

Proximity Overlaps Another Proximity Waypoint—The alarm radius specified overlaps the area specified for another proximity waypoint. Adjust distance.

Route Already Exists: <route name>— You have entered a route name that already exists in memory. Modify route name or delete the previous route name.

Route Is Full— You have attempted to add more than 50 points to a route. Reduce number of points or create second route.

Route Memory Is Full Can't Create Route— Maximum amount of 50 routes already in unit memory and no additional routes can be added until existing ones are removed.

Route Truncated— Uploaded route from other device has more than 50 points or is incomplete.

Running Simulator— Unit is in simulator (practice) mode.

Shallow Water Alarm — Specified shallow water alarm depth has been detected below the transducer.

Track Already Exists: <track name>— You have entered a saved track name that already exists in memory. Modify track name or delete the previous track name.

Track Memory Is Full Can't Create Track— Track log memory is full. No additional track log data can be stored without deleting old data to create memory space.

Track Truncated— A complete upload track will not fit into memory. The oldest track log points were deleted to make space for the most recent data.

Transfer Complete— The unit has finished uploading/downloading information to the connected device.

Waypoint Already Exists: <waypoint name>— You have entered a waypoint name that already exists in memory. Modify waypoint name or delete the previous waypoint name.

Waypoint Memory Is Full Can't Create Waypoint— You have used all 3000 waypoints available. Delete unwanted waypoints to make space for new entries.

Appendix C
Map Datums

Adindan	Adindan- Ethiopia, Mali, Senegal, Sudan
Afgooye	Afgooye- Somalia
AIN EL ABD '70	AIN EL ANBD 1970- Bahrain Island, Saudi Arabia
Anna 1 Ast '65	Anna 1 Astro '65- Cocos I.
ARC 1950	ARC 1950- Botswana, Lesotho, Malawi, Swaziland, Zaire, Zambia, Zimbabwe
ARC 1960	Kenya, Tanzania
Ascnsn Isld '58	Ascension Island '58- Ascension Island
Astro B4 Sorol	Sorol Atoll- Tern Island
Astro Bcn "E"	Astro Beacon "E"- Iwo Jima
Astro Dos 71/4	Astro Dos 71/4- St. Helena
Astr Stn '52	Astronomic Stn '52- Marcus Island
Aus Geod '66	Australian Geod '66- Australia, Tasmania Island
Aus Geod '84	Australian Geod '84- Australia, Tasmania Island
Austria	Austria
Bellevue (IGN)	Efate and Erromango Islands
Bermuda 1957	Bermuda 1957- Bermuda Islands
Bogata Observ	Bogata Obsrvatry- Colombia
Campo Inchspe	Campo Inchauspe- Argentina
Canton Ast '66	Canton Astro 1966- Phoenix Islands
Cape	Cape- South Africa
Cape Canavrl	Cape Canaveral- Florida, Bahama Islands
Carthage	Carthage- Tunisia
CH-1903	CH 1903- Switzerland
Chatham 1971	Chatham 1971- Chatham Island
Chua Astro	Chua Astro- Paraguay
Corrego Alegr	Corrego Alegre- Brazil
Djakarta	Djakarta (Batavia)- Sumatra Island (Indonesia)
Dos 1968	Dos 1968- Gizo Island (New Georgia Islands)
Dutch	Dutch
Easter Isld 67	Easter Island 1967
European 1950	European 1950- Austria, Belgium, Denmark, inland, France, Germany, Gibraltar, Greece, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland
European 1979	European 1979- Austria, Finland, Netherlands, Norway, Spain, Sweden, Switzerland
Finland Hayfrd	Finland Hayford- Finland
Gandajika Base	Gandajika Base- Republic of Maldives
GDA	Geocentric Datum of Australia
Geod Datm '49	Geodetic Datum '49-New Zealand
Guam 1963	Guam 1963- Guam Island
Gux 1 Astro	Guadalcanal Island
Hjorsey 1955	Hjorsey 1955- Iceland
Hong Kong '63	Hong Kong
Hu-Tzu-Shan	Taiwan
Indian Bngldsh	Indian- Bangladesh, India, Nepal
Indian Thailand	Indian- Thailand, Vietnam
Indonesia 74	Indonesia 1974-Indonesia
Ireland 1965	Ireland 1965- Ireland
ISTS 073 Astro	ISTS 073 ASTRO '69- Diego Garcia
Johnston Island	Johnston Island Kandawala Kandawala- Sri Lanka
Kerguelen Islnd	Kerguelen Island

Note that the GPSMAP 2006/2010's built-in world-wide basemap is valid to 75º north and 60º south of latitude.

The 'User' datum is based on a WGS-84-Local datum and is an advanced feature for unlisted or custom datums. To learn more, check your local library or on the world wide web for educational materials on datums and coordinate systems.

Appendix C
Map Datums

Kertau 1948	West Malaysia, Singapore
L. C. 5 Astro	Cayman Brac Island
Liberia 1964	Liberia 1964- Liberia
Luzon Mindanao	Luzon- Mindanao Island
Luzon Philippine	Luzon- Philippines (excluding Mindanao Isl.)
Mahe 1971	Mahe 1971- Mahe Island
Marco Astro	Marco Astro- Salvage Isl.
Massawa	Massawa- Eritrea (Ethiopia)
Merchich	Merchich- Morocco
Midway Ast ‘61	Midway Astro ‘61- Midway
Minna	Minna- Nigeria
NAD27 Alaska	North American 1927- Alaska
NAD27 Bahamas	North American 1927- Bahamas (excluding San Salvador Island)
NAD27 Canada	North American 1927- Canada and Newfoundland
NAD27 Canal Zone	North Am. 1927- Canal Zone
NAD27 Caribbn	North American 1927- Caribbean (Barbados, Caicos Islands, Cuba, Dom. Rep., Grd. Cayman, Jamaica, Leeward and Turks Islands)
NAD27 Central	North American 1927-Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua)
NAD27 CONUS	North Am. 1927- Mean Value (CONUS- Continental US)
NAD27 Cuba	North American 1927- Cuba
NAD27 Grnland	North American 1927- Greenland (Hayes Peninsula)
NAD27 Mexico	N. American 1927- Mexico
NAD27 San Sal	North American 1927- San Salvador Island
NAD83	North American 1983- Alaska, Canada, Central America, CONUS, Mexico
Nhrwn Masirah	Nahrwn- Masirah Island (Oman)
Nhrwn Saudi A	Nahrwn- Saudi Arabia
Nhrwn United A	Nahrwn- United Arab Emirates
Naparima BWI	Naparima BWI- Trinidad and Tobago
Obsrvtorio ‘66	Observatorio 1966- Corvo and Flores Islands (Azores)
Old Egyptian	Old Egyptian- Egypt
Old Hawaiian	Old Hawaiian- Mean Value
Oman	Oman- Oman
Ord Srvy GB	Old Survey Grt Britn- England, Isle of Man, Scotland, Shetland Isl., Wales
Pico De Las Nv	Canary Islands
Potsdam	Potsdam-Germany
Ptcairn Ast ‘67	Pitcairn Astro ‘67- Pitcairn
Prov S Am ‘56	Prov So Amricn ‘56- Bolivia, Chile,Colombia, Ecuador, Guyana, Peru, Venezuela
Prov S Chln ‘63	So Chilean ‘63- S. Chile
Puerto Rico	Puerto Rico & Virgin Isl.
Qatar	Qatar National- QatarQornoq Qornoq- South Greenland
Reunion	Reunion- Mascarene Island
Rome 1940	Rome 1940- Sardinia Isl.
RT 90	Sweden
Santo (Dos)	Santo (Dos)- Espirito Santo
Sao Braz	Sao Braz- Sao Miguel, Santa Maria Islands
Sapper Hill ‘43	Sapper Hill 1943- East Falkland Island
Schwarzeck	Schwarzeck- Namibia
Sth Amrcn ‘69	S. American ‘69- Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Venezuela, Trin/Tobago
South Asia	South Asia- Singapore
SE Base	Southeast Base- Porto Santo and Madiera Islands
SW Base	Southwest Base- Faial, Graciosa, Pico, Sao Jorge and Terceira Islands
Timbalai 1948	Timbalai 1948- Brunei and E. Malaysia (Sarawak and Sabah)
Tokyo	Tokyo- Japan, Korea, Okinawa
User	User-defined custom datum
Tristan Ast ‘68	Tristan Astro 1968- Tristan da Cunha
Viti Levu 1916	Viti Levu 1916- Viti Levu/Fiji Islands
Wake-Eniwetok	Wake-Eniwetok- Marshall
WGS 72	World Geodetic System 72
WGS 84	World Geodetic System 84
Zanderij	Zanderij- Surinam

Appendix D
Navigation Terms

Avg Speed— The average of all second-by-second speed readings since last reset.

Bearing (BRG)— The compass direction from your present position to a destination waypoint.

Course— The desired course between the active 'from' and 'to' waypoints.

Distance (Dist)— The 'great circle' distance from present position to a destination waypoint.

Distance to Dest— The 'great circle' distance from present position to a GOTO destination, or the final waypoint in a route.

Distance to Next— The 'great circle' distance from present position to a GOTO destination, or the next waypoint in a route.

Elevation— Height above mean sea level (MSL).

ETA— Estimate Time of Arrival. The estimated time you will reach your destination waypoint, based on current speed and track.

ETA at Dest— The estimated time you will reach a GOTO destination, or the final waypoint in a route.

ETA at Next— The estimated time you will reach a GOTO destination, or the next waypoint in a route.

Fuel— The fuel required to travel from present position to the indicated route waypoint.

Leg Distance— The distance between two route waypoints.

Leg Fuel— The fuel required to travel from a route waypoint to the next waypoint (in sequence) in the route.

Leg Time— The time required to travel from a route waypoint to the next waypoint (in sequence) in the route.

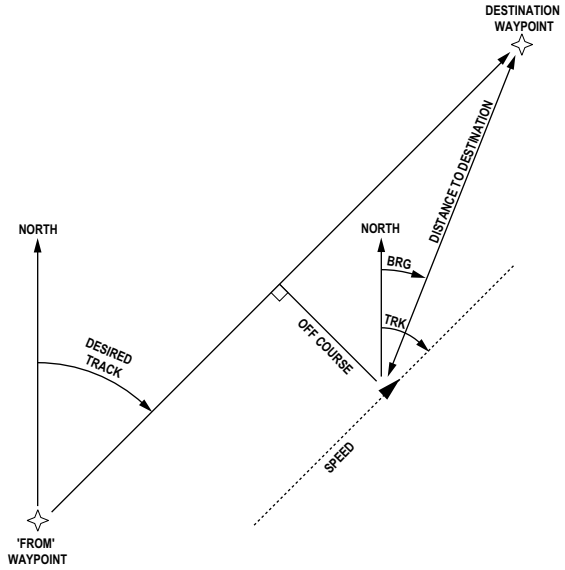
Max Speed— The maximum second-by-second speed recorded since last reset.

Moving Average Speed— Average speed while the unit is moving.

Moving Trip Timer— Total time the unit has been moving.

Odometer— A running tally of distance travelled, based upon the distance between second-by-second position readings.

Off Course— The distance you are off a desired course in either direction, left or right. Also referred to as 'cross-track error' or 'course error'.



Speed— The current velocity at which you are travelling, relative to a ground position. Also referred to as 'ground speed'.

Time To— The estimated time required to reach a GOTO destination, or the next waypoint in a route. Also referred to as 'estimated time en route'.

Time to Dest— The estimated time required to reach a GOTO destination, or the final waypoint in a route.

Time to Next— The estimated time required to reach a GOTO destination, or the next waypoint in a route.

To Course— The recommended direction to steer in order to reduce course error or stay on course. Provides the most efficient heading to get back to the desired course and proceed along your route.

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

Trip Odometer— A running tally of distance travelled since last reset. Also see 'Odometer'.

Total Average Speed— Average speed of unit for both moving and stopped speeds since last timer reset.

Total Trip Timer— Total time the unit has been in operation since last reset of the trip timers.

Turn— The angle difference between the bearing to your destination and your current track. 'L' indicates you should turn left, 'R' indicates you should turn right. The degrees indicate the angle you are off course.

VMG— Velocity Made Good. The speed you are closing in on a destination along a desired course. Also referred to as the 'vector velocity' to your destination.

Installing and Removing Data Cards

The GPSMAP 2006/2010 uses optional GARMIN marine BlueChart and MapSource data cards to display digital charts and maps on-screen. Data cards are installed in the card slots located on the left side of the unit. Up to two data cards may be installed or removed at any time, whether the unit is on or off.

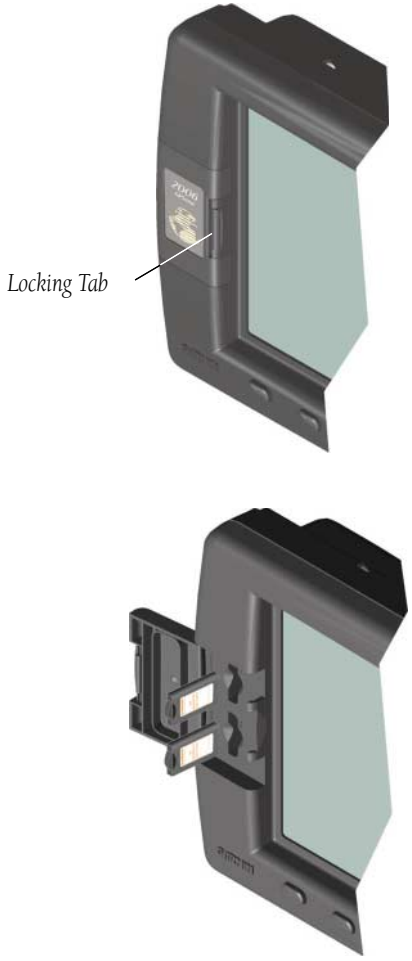
To install a data card:

1. Open the card door by pressing the locking tab on the door towards the outside (left) of the unit and lifting the door open from right to left.
2. Insert the card(s), with the label facing right and the handle towards you, into the slot.
3. Firmly push the card into the unit. It is not necessary to force the card and about 3/16" (5mm) will still be exposed when it is properly inserted. If the unit is on, a confirmation tone will sound. The first time you insert a programmed data card, the unit will take a few seconds to read the card. Once the data card has been been properly installed and accepted, a summary screen noting the card details will appear. Press **ENTER/MARK** to acknowledge.
4. Close the cover until the locking tab on the door snaps into place.

If you insert a data card and get a 'card format not recognized' message, try removing the card and reinserting it. If the card is still not recognized, contact the GARMIN or your GARMIN dealer for assistance. Data cards are not waterproof, should not be exposed to moisture or excessive static charges, and should be stored in the case supplied with the card. Be sure to keep the data card door closed when not inserting or removing data cards.

To remove a data card:

1. Open the card door by pressing the locking tab on the door towards the outside (left) of the unit and lifting the door open from right to left.
2. Grasp the card handle and pull towards you firmly.
3. If the unit is on, a confirmation tone will sound when the data card has been removed.
4. Close the cover until the locking tab on the door snaps into place.



Appendix F
Specifications and Interfacing

Interfacing

The following formats are supported for connection of external devices:

Approved sentences for NMEA 0183, version 2.3 output only on Port 1 and 2: GPRMC, GPGGA, GPGSA, GPGSV, GPGLL, GPBOD, GPRTE, and GPWPL. Proprietary sentences— PGRME and PGRMZ.

Approved sentences for NMEA 0183, version 2.3 sonar input only on Port 1 and 2: DPT (Depth), MTW (Water Temp) and VHW (Water Speed & Heading)

If attaching a 3rd party GPS receiver, the following are approved NMEA 0183, version 2.3 GPS input only on Port 4: GPGGA, GPGSA, GPGSV, and GPRMC.

For port wiring, refer to the GPSMAP 2006/2010 Installation Guide.

Documentation concerning NMEA sentences is available for purchase from NMEA at:

National Marine Electronics Association (NMEA)
Seven Riggs Avenue
Severna Park, MD 21146
U.S.A.
410-975-9425
410-975-9450
www.nmea.org

Physical Specifications

Size:	2006/2006C: 6.5" H x 10.3" W x 3.3" D (16.5 x 26.2 x 8.4 cm)
	2010/2010C: 8.8" H x 13.1" W x 3.0" D (22.4 x 33.3 x 7.6 cm)
Weight:	2006/2006C: 3.0 lbs. (1.4 kg) 2010/2010C: 5.0 lbs. (2.3 kg)
Display:	2006: 7.2" diagonal (18.3 cm) 2010: 9.4" diagonal (23.9 cm) high resolution, 10-level grayscale LCD with adjustable backlighting (640 x 480 pixels)
	2006C: 6.4" diagonal (16.3 cm) 2010C: 10.4" diagonal (26.4 cm) high resolution, 256 color LCD with adjustable backlighting (640 x 480 pixels)
Case:	Fully gasketed, high-impact plastic alloy, waterproof to IEC 529-IPX-7
Temp.	Range: 5°F to 158°F (-15°C to 70°C)

GPS Performance (with GPS 17N)

Receiver:	Differential-ready 12 parallel channel WAAS capable receiver
Acquisition Times:	
Warm:	Approx. 15 seconds
Cold:	Approx. 45 seconds
AutoLocate:	Approx. 2 minutes
Update Rate:	1/second, continuous
GPS Accuracy:	
	Position*: <15 meters (49 feet), 95% typical*
	Velocity: 0.05 meters/sec steady state
DGPS (USCG) Accuracy:	
	Position: 3-5 meters (10-16 feet) with optional GARMIN DGPS receiver, 95% typical*
	Velocity: 0.05 meters/sec steady state
DGPS (WAAS) Accuracy:	
	Position: <3 meters (10 feet), 95% typical*
	Velocity: 0.05 meters/sec steady state
Dynamics:	6g's

* Subject to accuracy degradation to 100m 2DRMS under the U.S. DOD-imposed Selective Availability Program.

Power

Source:	8-32v DC
Usage:	24 watts max. at 8v DC
Fuse:	AGC-5 - 5.0 Amp

Appendix G

Packing List / Accessories & Unit Care

Before installing and getting started with your unit, please check to see that your package includes the following items. **If any parts are missing, please contact your GARMIN dealer immediately.**

Standard Package:

- GPSMAP 2006/2010 Unit
- GPS 17N Antenna with 30' cable
- Gimbal Mount and Knobs
- Power/Data Cable
- Owner's Manual
- Quick Reference Guide
- Installation Guide
- Protective Cover

Optional Accessories:

- US A/C PC Adapter
- EURO A/C PC Adapter
- Cigarette Lighter Adapter
- Blank or Preprogrammed Data Cards with BlueChart Marine Cartography
- MapSource CDs: U.S. Waterways & Lights, Fishing Hot Spots®, Roads & Recreation, WorldMap
- USB Data Card Programmer
- DGPS 53 GPS/Beacon Receiver
- GBR 23 Beacon Receiver
- 2nd Mounting Station

UNIT CARE

Cleaning - *The GPSMAP 2006C/2010C lens is coated with a special anti-reflective coating which is very sensitive to skin oils, waxes and abrasive cleaners. CLEANERS CONTAINING AMMONIA WILL HARM THE ANTI-REFLECTIVE COATING. It is very important to clean the lens using an eyeglass lens cleaner which is specified as safe for anti-reflective coatings and a clean, lint-free cloth. Units with a monochrome display may use the same cleaning method.*

The unit's case is constructed of high quality material and does not require user maintenance other than cleaning. Clean the unit housing using a cloth lightly dampened with a mild detergent solution and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components. Do not apply cleaner to electrical contacts on the back of the unit.

Storage - *Do not store the unit where exposure to temperature extremes may occur (see pg. 70), as permanent damage may result. User information, such as waypoints, routes, etc. will be 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 (see pg. 60).*

Appendix H
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Appendix H
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For the latest free software updates throughout the life of your GARMIN products, visit the GARMIN web site at www.garmin.com

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Part Number 190-00241-00 Rev. B