

GPSMAP 3005C

color chartplotter

owner's manual



© Copyright 2005 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street,
Olathe, Kansas 66062, U.S.A.
Tel. 913/397.8200 or 800/800.1020
Fax 913/397.8282

Garmin (Europe) Ltd.
Unit 5, The Quadrangle, Abbey Park Industrial Estate,
Romsey, SO51 9DL, U.K.
Tel. 44/0870.8501241
Fax 44/0870.8501251

Garmin Corporation
No. 68, Jangshu 2nd Road, Shijr, Taipei County,
Taiwan
Tel. 886/2.2642.9199
Fax 886/2.2642.9099

All rights reserved. Except as expressly provided herein, no part of this manual may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this manual onto a hard drive or other electronic storage medium to be viewed and to print one copy of this manual or of any revision hereto, provided that such electronic or printed copy of this manual must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this manual or any revision hereto is strictly prohibited.

Information in this document is subject to change without notice. Garmin reserves the right to change or improve its products and to make changes in the content without obligation to notify any person or organization of such changes or improvements. Visit the Garmin Web site (www.garmin.com) for current updates and supplemental information concerning the use and operation of this and other Garmin products.

Garmin[®], GPSMAP[®], AutoLocate[®], TracBack[®], BlueChart[®], MapSource[®], and See-Thru[®] are registered trademarks of Garmin Ltd. or its subsidiaries and may not be used without the express permission of Garmin.

INTRODUCTION

Thank you for choosing the Garmin GPSMAP® 3005C. The GPSMAP 3005C uses the proven performance of Garmin® GPS and full-featured mapping to create an unsurpassed marine Multi-Function Display (MFD). Take a moment now to compare the contents of this package with the packing list on the outside of the box. If any pieces are missing, contact your Garmin dealer immediately.

Before you begin working with the GPSMAP 3005C, review the installation instructions in the *GPSMAP 3005C & GPS 17 Installation Instructions*. If you have any questions about installing your chartplotter, please contact Garmin Product Support or a professional installer.

About This Manual

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

The **Introduction** contains the Table of Contents.

The **Getting Started** section provides a unit overview and information that teaches you a basic working knowledge necessary to use the GPSMAP 3005C.

The **Basic Operation** section provides you with details and step-by-step instructions for features such as creating and using waypoints, navigating a route, and using the Find key.

The **Main Pages** section provides detailed explanations about each page in the GPSMAP 3005C and step-by-step directions on using the pages.

The **Main Menu** section provides detailed explanations about the Main Menu and how to use it to configure your unit.

If you have a Garmin Sonar Module connected to your GPSMAP 3005C, see the **Using Sonar** section.

The **Appendix** contains specifications, regulatory information, unit care information, optional accessories, and maintenance information. You can also find warranty and FCC information in the Appendix. **Read the Safety Information to learn how to install and use your Garmin GPSMAP 3005C safely and responsibly.**

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

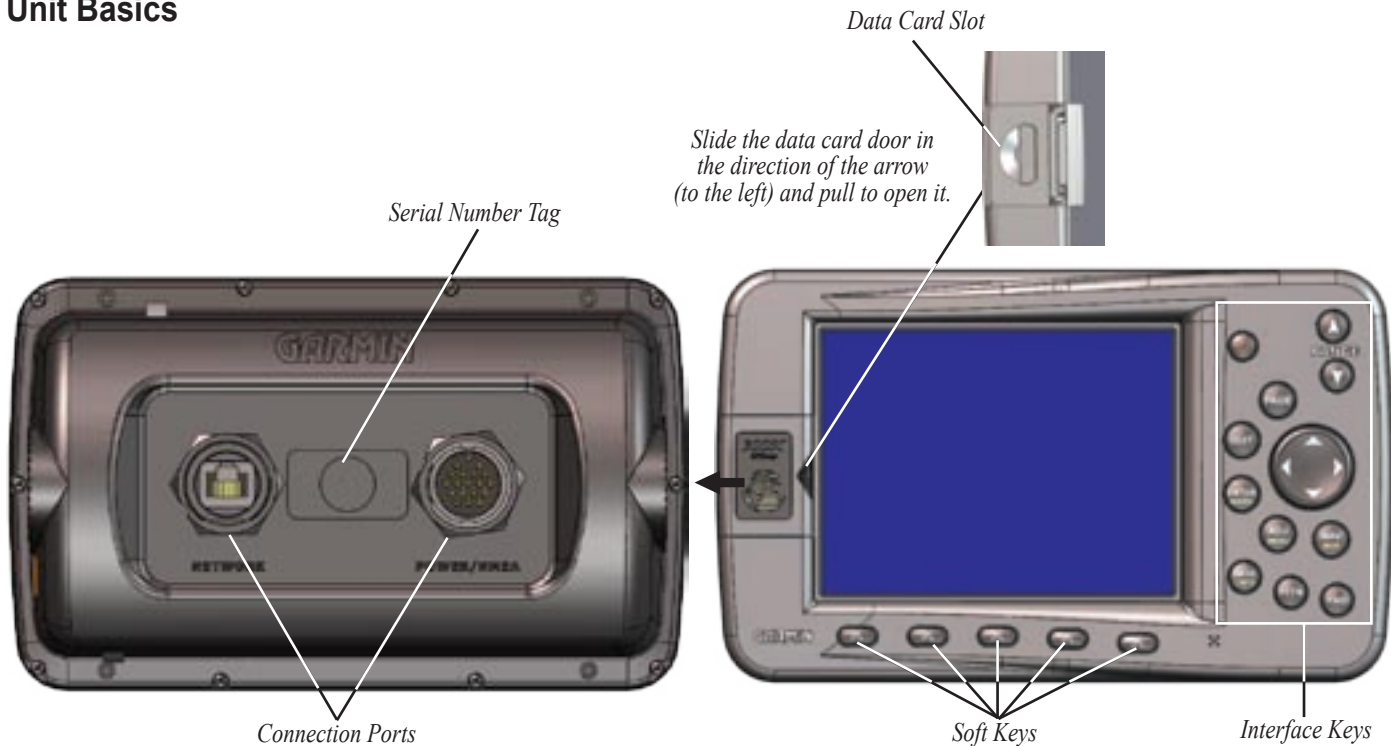
Introduction	i	Reviewing and Editing Waypoints	20
About This Manual	i	Waypoint Lists	23
Getting Started	1	User Waypoint List	23
Unit Basics	1	Proximity Waypoint List.....	26
Interface Keys	2	Navigating to a Destination	28
Soft Keys	3	Selecting a Go To Destination Graphically	29
Status Bar.....	3	Follow Track and TracBack Navigation.....	30
Installation	3	TracBack Tips.....	32
Turning On the GPSMAP 3005C	4	Man OverBoard (MOB)	33
Adjusting the Backlight.....	4	Routes	34
Initializing the GPS Receiver	5	Following a Route	37
Simulator Mode	6	Route List Page.....	37
Basic Operation	8	Route Review Page.....	38
Using the GPSMAP 3005C	8	Editing Routes	39
Understanding the Features	8	Planning Routes.....	41
Selecting Options and Entering Data.....	9	Main Pages	43
Using Additional Map Data.....	10	Configuring Main Pages	44
Using the Map Pointer.....	11	Using Function Windows	47
Finding an Item.....	13	Function Adjustments	47
Creating and Using Waypoints	15	DATA Key	48
Creating Waypoints Using the ENTER/MARK Key	15	Map Page	48
Creating Waypoints Graphically.....	16	Using the Map Pointer.....	49
Creating Waypoints Manually	18	Map Page Options	51
		Compass Page	53
		Highway Page	54
		Highway Page Options	55

Main Menu	57	System Tab	77
GPS Tab	58	General Sub Tab	77
WAAS Capability	59	Units Sub Tab	79
Receiver Status and Accuracy	59	Time Sub Tab	81
Tide Tab	61	Comm (Communications) Sub Tab	81
Celestial Tab	63	Network Sub Tab	84
Trip Tab	64	Pages Tab	84
Points Tab	65	Map Tab	85
User Sub Tab	65	Prefs Sub Tab	85
Proximity Sub Tab	65	Detail Sub Tab	86
Routes Tab	66	Labels Sub Tab	87
Tracks Tab	66	Nav Sub Tab	87
Active Sub Tab	67	Source Sub Tab	88
Saved Sub Tab	67	Temp (Temperature) Tab	89
DSC (Digital Selective Calling) Tab	69	Sonar Tab	90
Understanding DSC Distress Calls	69	Highway Tab	90
Understanding Position Reports	70	Using Sonar	91
DSC Item Review	71	Sonar Page	91
Setting up DSC	72	Configuring the Sonar Page	92
Using the NAV Key	73	Using the Sonar Adjustment Menu	93
Card Tab	73	Using the Pointer on the Sonar Page	96
Alarms Tab	74	Marking an Underwater Waypoint	96
System Sub Tab	75	Sonar Tab	97
Nav Sub Tab	75	General Sub Tab	97
Sonar Sub Tab	76	Water Temp Sub Tab	99

Understanding Sonar	100	LORAN TD System	110
Understanding the Sonar Display	100	LORAN TD Feature	110
Transducer Coverage	101	Using the LORAN TD Format	110
Whiteline	102	Navigation Terms	112
Thermoclines	102	Messages	114
Appendix	103	Optional Accessories	117
Specifications	103	Product Registration	118
Caring for the GPSMAP 3005C	104	Contact Garmin.....	118
Installing and Removing the Data Card	105	Software License Agreement	118
Satellite Information	106	Limited Warranty	119
What is WAAS?	107	FCC Compliance	120
What is Differential GPS (DGPS)?	107	Safety Information	121
Digital Selective Calling (DSC)	108	Index	122
What is a Maritime Mobile Service Identity (MMSI)?	108		
How Are MMSI Assignments Obtained?	108		

GETTING STARTED

Unit Basics



Interface Keys

POWER Key

- Press and hold to turn the unit on or off.
- Press and release to adjust backlighting.

PAGE Key

- Press to cycle through the Main pages.
- Press to end an operation in progress and return to the Main page.

QUIT Key

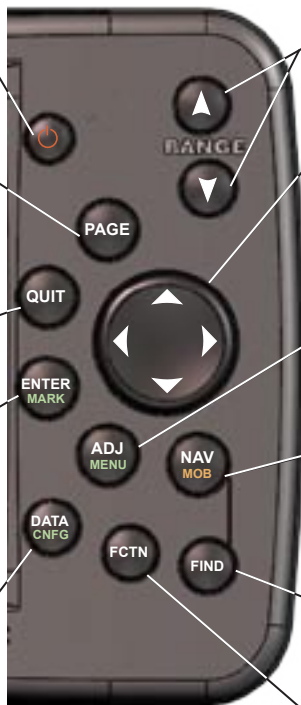
- Press to cancel data entry or exit a page.

ENTER/MARK Key

- Press and release to enter highlighted items and data or confirm on-screen messages.
- Press and hold to mark your current location as a waypoint.

DATA/CNFG Key

- Toggle the display of a Main page with or without function windows and data fields.
- Press and hold to display the Configuration page.



RANGE Keys

- Press to zoom in or out on the map.

ROCKER Key

- Press Up/Down or Right/Left to move through lists, highlight fields, on-screen buttons and icons, enter data, or move the map pointer.

ADJ/MENU Key

- Press and release to view options for a page.
- Press and hold to display the Main Menu.

NAV/MOB Key

- Press to display the Navigation menu.
- Press and hold to activate MOB (Man OverBoard).

FIND Key

- Press to search for points such as user waypoints, cities, and services.

FCTN Key

- Press to cycle through function windows.

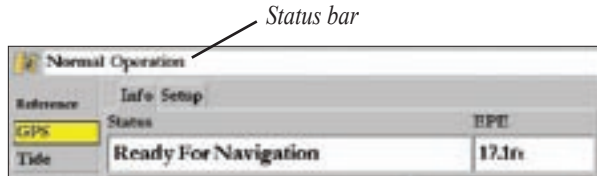
Soft Keys

Soft Keys are located along the bottom of the display and are used as shortcuts to select the most commonly used options for the selected function. To select an option, press the Soft Key below it. Options vary, depending on which function is selected.



Status Bar

At the top of each page, the status bar provides current status information for connected devices and several of the MFD functions. As additional devices are added to the MFD or Garmin Marine Network, icons for the device appear on the status bar.



When navigating lists of similar items, such as waypoints, the status bar displays a message if additional ADJ/MENU key options are available.



Alarm alerts also appear on the status bar. To acknowledge an alarm, press **QUIT**. If an alarm condition persists, it is displayed on the status bar until the alarm condition no longer exists. For more information about alarms, see page 74-76.



Alarm on the Status Bar

Installation

Instructions for installing the GPSMAP 3005C MFD can be found in the *GPSMAP 3005C & GPS 17 Installation Instructions*. To complete the installation, you need the appropriate fasteners, tools, and mounts listed in each section. Installation items not provided by Garmin should be available at most marine dealers. If you experience difficulty installing the unit, contact Garmin Product Support or an installation professional in your area.

Turning On the GPSMAP 3005C

The first time you turn on the GPSMAP 3005C MFD and GPS 17 receiver, the receiver must collect satellite data and establish its present location. To ensure proper initialization, the GPSMAP 3005C is shipped from the factory in AutoLocate mode.

Before you turn on the GPSMAP 3005C, make sure the unit and GPS 17 antenna are correctly installed on your vessel according to the instructions in the *GPSMAP 3005C & GPS 17 Installation Instructions*.

To turn on the GPSMAP 3005C:

1. Press and hold the **POWER** key until the unit turns on, and then release it.
2. When the unit turns on, an Introduction page appears. Read the Introduction page, and press **ENTER** when **I Agree** is highlighted to display the Map page.

To turn off the GPSMAP 3005C:

Press and hold the **POWER** key for approximately two seconds.

Adjusting the Backlight

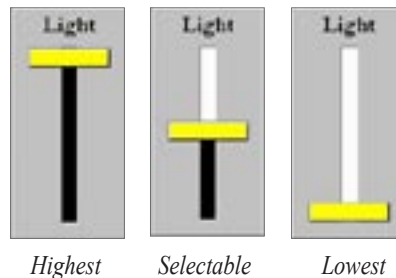
The GPSMAP 3005C's adjustable screen backlighting is controlled with the **POWER** key, and can be adjusted from any page.

To adjust the backlight level:

1. Press and release the **POWER** key.
2. Press Up on the **ROCKER** to increase the brightness, or press Down to decrease.

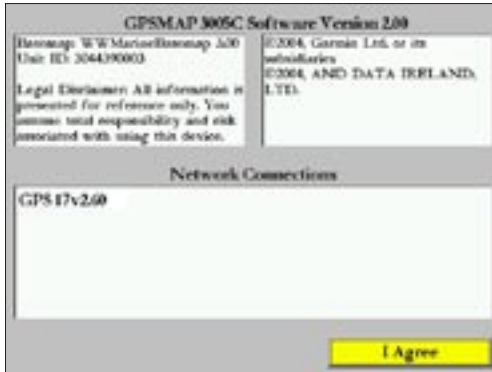


TIP: After you open the Backlight Adjustment window, press **POWER** repeatedly to cycle through the three backlight settings: **Highest**, **Selectable**, and **Lowest**.



Initializing the GPS Receiver

When you turn on the GPSMAP 3005C, an Introduction page appears, displaying unit information, network connections (attached devices), and important information regarding the proper use of the unit. It takes a few seconds for the MFD to search for attached devices. When the search is complete, the **I Agree** button is highlighted. After reading the introduction, press **ENTER**.



Introduction Page

Next, you see the first of the Main pages, the Map page. The GPSMAP 3005C begins searching for the GPS satellites. The first time the unit acquires satellites takes several minutes. Afterward, acquisition times are quicker during normal use. The GPS Status

icon on the left side of the status bar shows the progress of the satellite acquisition process. GPS icon status colors are:

- **Red**—Acquiring Satellites/Lost Satellite Reception.
- **Orange**—Ready For Navigation/Ready For Navigation with WAAS.
- **Gray**—Lost GPS Connection. (Check GPS antenna wiring connections.)

A detailed visual reference of the satellite acquisition, GPS receiver status, and accuracy is available on the **GPS** tab on the Main Menu.



GPS Tab

To view the GPS tab information:

1. Press and hold **ADJ/MENU** for two seconds to display the Main Menu page.
2. Use the **ROCKER** to highlight the **GPS** tab.

When viewing the GPS Info sub tab, a signal strength bar for each satellite in view appears on the right 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 green signal strength bars**—the receiver has collected the necessary data and the satellite(s) are ready for use.

After the receiver has collected information from at least three satellites, the **Status** field displays either “Ready for Navigation” or “Ready for Navigation with WAAS.” The GPSMAP 3005C is now ready for use. Press **QUIT** to return to the Map page.

For more detailed information on the GPS tab, its related options, WAAS, and GPS, see page 59.

Simulator Mode

Simulator Mode is great for practicing with the unit while inside and satellite signals are not available. When the GPSMAP 3005C is in Simulator Mode, the GPS receiver is turned off. The unit cannot be used for actual navigation.



NOTE: Do not try to navigate in Simulator Mode. While in Simulator Mode, the GPS receiver is turned off. Any Satellite Signal Strength Indicators displayed are only simulations and do not indicate the strength of actual satellite signals.

To place the GPSMAP 3005C in Simulator Mode:

1. Press and hold **ADJ/MENU** to display the Main Menu page.
2. Press Up or Down on the **ROCKER** until the **System** tab is highlighted.
3. Press Right on the **ROCKER** to highlight the **General** sub tab, highlight the **System Mode** field, and press **ENTER**.
4. Highlight **Simulator**, and press **ENTER**.

When Simulator Mode is active, the message “Simulating Operation” appears in the status bar at the top of each page.



Simulator Mode

To set up Simulator Mode:

Highlight the **Setup** button, and press **ENTER**. The Simulator Setup window appears.

The following options are available for Simulator Setup:

- **Current Time/Date**—enter a simulated date and time.
- **Speed**—enter a simulated speed.
- **Transducer**—simulate using a **Depth Only**, **Temp**, or **Temp, Speed** transducer.

- **Track Control**—select track control. **Auto Track** steers to the current navigation point; **User Track** allows you to enter a heading in the **Track** field.
- **Track**—enter a simulated heading.
- **Set Position**—set your location while in Simulator Mode.

You can also control the speed and track from the Compass or Highway pages using the **ROCKER**. Press Up or Down to increase or decrease speed. Press Left or Right to change heading.

To turn off Simulator Mode:

1. Press and hold **ADJ/MENU** to open the Main Menu page.
2. Press Up or Down on the **ROCKER** to highlight the **System** tab.
3. Press Right on the **ROCKER** to highlight the General sub tab, highlight the **System Mode** field, and press **ENTER**.
4. Highlight **Normal**, and press **ENTER**.

When Normal Mode is active, the message “Normal” appears in the status bar at the top of each page.

BASIC OPERATION

Using the GPSMAP 3005C

This section explains how to enter and select information with the GPSMAP 3005C.

Understanding the Features

The GPSMAP 3005C unit's advanced keypad system is designed to allow quick, convenient selection of navigation options and data entry. As you progress through this *Owners Manual*, you are directed to press a specific key or highlight a field on the screen. When you are directed to press a key, you should press and quickly release the key. If you need to hold down the key for a period of time to activate a secondary function, the instructions will tell you to do so. The position of the highlight is controlled by the **ROCKER**. When a field is selected on the screen, it is highlighted in yellow.

The following terms are used throughout this manual:

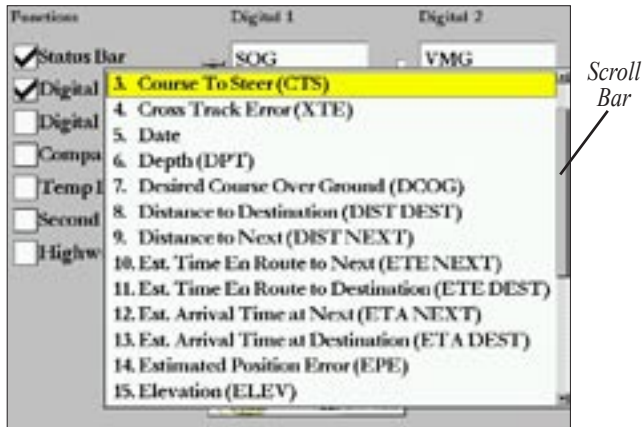
Highlight—the highlighted area on the screen that can be moved Up, Down, Left, or Right with the **ROCKER** to select individual fields. Moving the highlight to a given location allows you to make a selection, begin data entry, or scroll through a list.

Field—the location on a page where data or an option can be entered and displayed. The pointer is placed on a field using the **ROCKER** to begin data entry or selection of options.

On-Screen Button—similar to “field.” Use the **ROCKER** to highlight an on-screen button, and press **ENTER** to select it.



Scroll Bar—When viewing a list of items too long to display on the screen, a scroll bar appears along the right side of the list. The position of the scroll bar indicates which portion of the list is currently displayed. The height of the scroll bar indicates the number of items in the list. To scroll through a list, press Up or Down on the **ROCKER**. Press Right or Left on the **ROCKER** to scroll one page at a time.



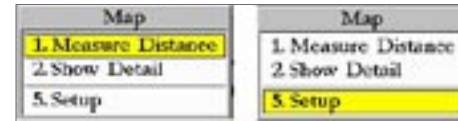
Default—the factory setting saved in the unit's memory. You can change the settings as you like, but you can also revert to the factory (default) settings when you select **Factory Settings**.

Selecting Options and Entering Data

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

To select and activate an optional feature:

1. From any page, press **ADJ**. The adjustment menu displays a list of optional features specific to that page.



2. Use the **ROCKER** to move the highlight Up, Down, Left, or Right to the selection you want.
3. Press **ENTER** to activate the feature, or press **ADJ** to display a sub-menu or list with more options. Repeat this process to select an option from the list, or press **QUIT** to return to the previous setting.

To select and activate an on-screen button:

Use the **ROCKER** to highlight an on-screen button, and press **ENTER** to activate its function.

To select and activate an option using Soft Keys:

Press the Soft Key below an option.

To exit a menu or return to the previous setting:

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

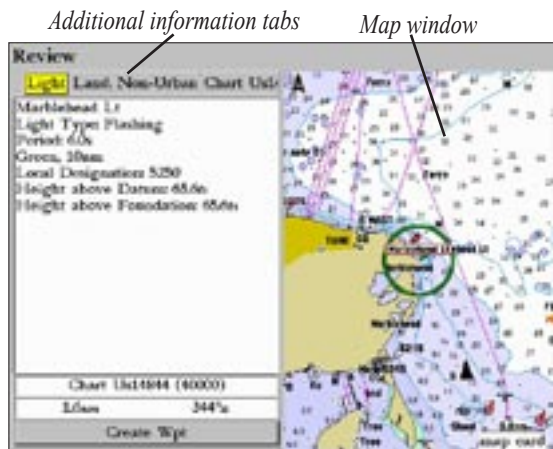
To enter data in a data field:

1. Use the **ROCKER** to highlight the data field, and press **ENTER** to activate the field.
2. Press Up or Down on the **ROCKER** to cycle through allowable characters. Press and release the **ROCKER** to move character by character through the list; press and hold the **ROCKER** to move rapidly through the list.
3. Press Left or Right on the **ROCKER** to manually move to the next character on the line or backward to edit characters. Press Left on the **ROCKER** from the first character position to clear the field. If there are more than two lines of data, keep pressing Right to go to the next line.
4. When data entry is completed, press **ENTER** to accept data, and move to the next programmable field. Not all data fields are programmable. When moving about a page with these fields, the highlight skips them.

**Using Additional Map Data**

The GPSMAP 3005C comes standard with a built-in basemap showing cities, interstates, coastline detail, and U.S. tide stations. Optional Garmin Data Cards and MapSource CD-ROMs enhance the versatility of your GPSMAP 3005C. With optional BlueChart cartography, you can access marine nav aids, wrecks, obstructions, anchorage locations, shaded depth contours, intertidal zones, spot soundings, port plans, and more. See your Garmin dealer or visit the Garmin Web site (www.garmin.com) for more information on available pre-programmed Garmin Data Cards and other MapSource programs to increase the mapping capability of your new unit.

- When a waypoint or map item is selected, it is highlighted on-screen with the name and location displayed. Press **ENTER** to show details of the map item. When using BlueChart or MapSource data, or if waypoints are grouped tightly together due to the Range setting, additional tabs appear on the Review Waypoint page. Use the **ROCKER** to highlight the individual tabs to display the information and additional options. Press **QUIT** to exit.



To eliminate the pointer and re-center your location on-screen:

Press **QUIT**.

To view additional BlueChart chart notes:

- Select an on-screen BlueChart map item using the previous steps.
- Use the **ROCKER** to highlight the **Chart <name>** tab. A chart summary appears below the tab.
- Highlight the **Notes** button, and press **ENTER**. Notes for the chart appear.
- Highlight the notes field, and press **ENTER** to scroll the text Up or Down using the **ROCKER**.
- Press **QUIT** to exit.

To create a waypoint with the pointer:

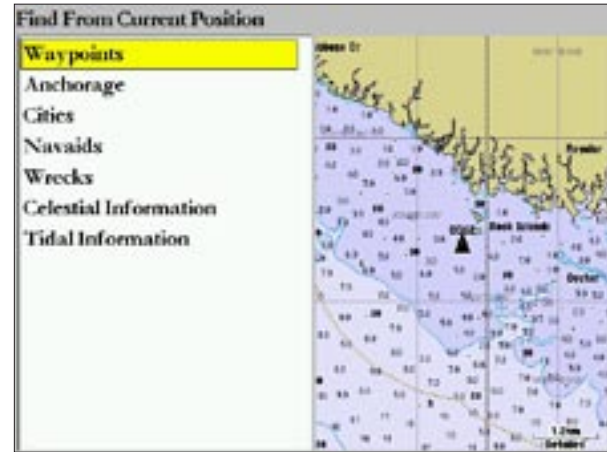
- Use the **ROCKER** to move the pointer to the map location you want.
- Press **ENTER/MARK**. The Review Waypoint page appears. If the pointer is on a map item, the Map Details page appears with details about the map item.
- If the Map Details page appears, press **ENTER** again on the highlighted **Create Wpt** button to display the Review Waypoint page.
- Highlight **OK** and press **ENTER** to confirm the new waypoint using the default name and symbol. For information about changing any of the available waypoint information, see page 20.

Finding an Item

Use the **FIND** key to search for user waypoints, map items, and any optional BlueChart or MapSource information loaded on a data card. Press **FIND** to search for items from your current location including include waypoints, cities, celestial information, and tidal information. Additional items, such as anchorages, businesses, nav aids, restricted areas, and wrecks, are displayed depending on the optional BlueChart or MapSource data card inserted into the unit. If you pan around on the Map window and press **FIND**, the unit centers its search from the pointer location. 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 an item from your current location:

- 1 From any page, press **FIND**.
- 2 Using the **ROCKER**, highlight a category on the **Find From Current Position** list, and press **ENTER**. For some categories, you may need to select multiple subcategories depending on what BlueChart or MapSource data you have loaded.



Find From Current Position List

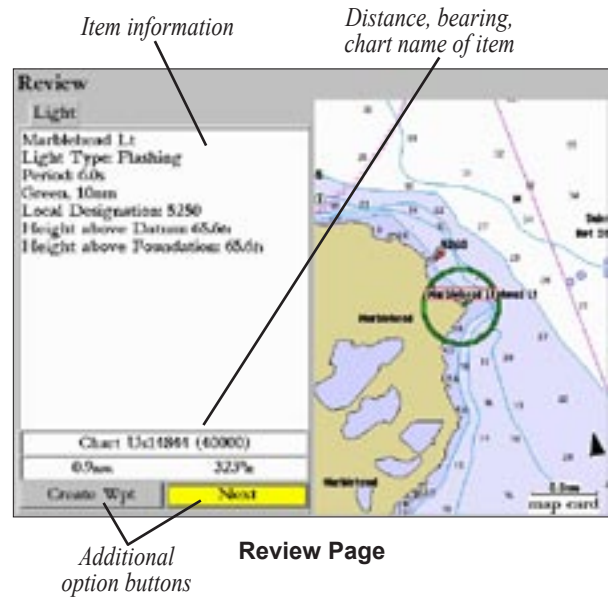
3. Some items have a **By Name** tab. For **By Name**, select the top field to spell out the name, or scroll through the list.
4. Some items have a **Filter List** button that allows you to enter letters or numbers of the item name. The search result shows only items matching the letters/numbers that are entered. Highlight the **Filter List** button, and press **ENTER**, and enter data as needed to narrow your search.

To find an item from another location on the map:

1. From the Map page, use the **ROCKER** to pan to the location you want, and press **FIND**.
2. Using the **ROCKER**, highlight a category from the **Find From** list, and press **ENTER**.

To view details about an item:

Highlight an item in the search results list, and press **ENTER**. The Review page appears showing item information, map location, chart name, distance/bearing, and options for creating a waypoint or viewing the next item in the search results list.

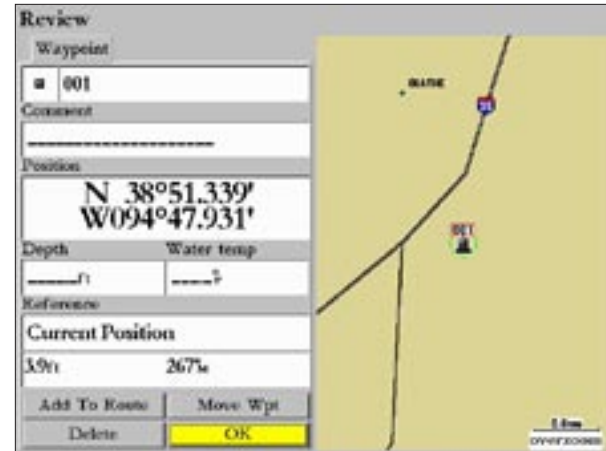


Creating and Using Waypoints

The GPSMAP 3005C stores up to 4,000 alphanumeric waypoints with a user-defined icon, comment, depth, and water temperature available for each waypoint. (If you are using an optional Garmin Sonar hardware module, the **Depth** and **Water Temp** fields fill in automatically.)

Waypoints are created using three methods:

- **ENTER/MARK**—marks your current location.
- **Graphically**—defines a new waypoint location from the map display using the **ROCKER**.
- **Manually**—allows you to enter new waypoint coordinates manually.



Creating a waypoint.

Creating Waypoints Using the ENTER/MARK Key

Use the **ENTER/MARK** key on the GPSMAP 3005C to capture your current location (or pointer or map item location) to create a new waypoint. You must have a valid position fix to mark your current location.

To mark your current location:

1. Press and hold **ENTER/MARK** until the Review Waypoint page appears, and release it. The GPSMAP 3005C captures its current location and creates a default name and symbol for the new waypoint.



Review Waypoint Page

2. To accept the waypoint with the default name and symbol, press **ENTER**. To change any of the available waypoint information, see page 20.

Creating Waypoints Graphically

Waypoints can be created using the map pointer to point to any map location or map feature. When you move the pointer over a map item, you see a highlighted description of the item.



Creating a waypoint graphically.

To create a new waypoint graphically:

1. Use the **ROCKER** to move the pointer to the map location you want.
2. Press and quickly release the **ENTER/MARK** key to capture the pointer location. Do not hold the button down, as doing so marks your present location, not the map location. The Review Waypoint page appears.
3. To accept the waypoint with the default name and symbol, press **ENTER**. To change the available waypoint information, see page 20.

To create a new waypoint from a map feature:

1. Use the **ROCKER** to move the pointer and highlight the map feature you want.
2. Press **ENTER/MARK** to capture the pointer location. The Review page for the selected map feature appears.



*Using a map item to create a new waypoint.
(BlueChart data shown.)*

3. With **Create Wpt** highlighted, press **ENTER** to display the Review Waypoint page.
4. To accept the waypoint with the name and symbol, press **ENTER**. To change the available waypoint information, see page 20.

Creating Waypoints Manually

You can manually enter position coordinates to create a waypoint using the **Points** tab on the Main Menu. This method is useful for creating a waypoint at a specific latitude/longitude position from a chart or other source. Entering coordinates into the MFD while it is set to a datum different from in which the coordinates were created may result in an incorrect waypoint location. When entering a waypoint manually, be sure that the MFD is set to the same position format and map datum (see page 79) as the paper chart or coordinates source.

To create a new waypoint by entering location coordinates:

1. Press **ADJ/MENU** for two seconds to display the Main Menu. Highlight the **Points** tab. You can also mark your present location using the steps on page 16, then proceed to step 3.
2. Use the **ROCKER** to highlight the **New Waypoint** button, and press **ENTER**. The Review Waypoint page appears with the next available waypoint number and the receiver's last known position as the default name and position.
3. Use the **ROCKER** to highlight the **Position** field, and press **ENTER**.

4. Enter position coordinates using the **ROCKER**, and press **ENTER**.



Entering position coordinates.

5. To accept the waypoint with the default name and symbol, press **ENTER**. For information on changing available waypoint information, see page 20.
6. Use the **ROCKER** to highlight the **OK** button, and press **ENTER** to save the waypoint.

Two other options are available on the Review Waypoint page:
Add To Route and **Move Wpt** (waypoint).

- **Add to Route**—adds the new waypoint to the end of a route.
- **Move Wpt**—allows you to move or project the waypoint to a new location on the map display.

To add a new waypoint to a route:

1. Highlight **Add To Route**, and press **ENTER**. The Select Route page appears.
2. Highlight a route or **New Route**, and press **ENTER**.
3. Highlight **OK**, and press **ENTER** to add the waypoint to the route.



Select Route Page

For more information about using Routes, see the “Routes” section on page 34. For more information about the Move Wpt option, see page 22.

Reviewing and Editing Waypoints

After you create a waypoint, you can modify, review, rename, move (project), or delete it using the Review Waypoint page. This page displays waypoint details, and a Map window that can be panned or scaled. Use the Map window or waypoint list to view waypoints.

To access the Review Waypoint page from the Map page:

Use the **ROCKER** to highlight a waypoint on the Map page, and press **ENTER** to display the Review Waypoint page.



To access the Review Waypoint page from a waypoint list:

1. Press **ADJ/MENU** for two seconds to display the Main Menu page. Use the **ROCKER** to highlight the **Points** tab, and then highlight a waypoint from the list on the **User** or **Proximity** sub tab.
2. Press **ENTER** to display the Review Waypoint page. Additional information tabs do not display in this mode.

To change the waypoint name:

1. Highlight the waypoint name field, and press **ENTER**.
2. Use the **ROCKER** to enter a new name, and press **ENTER**.

To change the waypoint symbol:

1. Highlight the waypoint symbol field to the left of the waypoint name, and press **ENTER**.
2. Use the **ROCKER** to select a different symbol, and press **ENTER**.



Changing the waypoint symbol

To change the Comment, Position, Depth, or Water temp:

1. Highlight the field you want to change, and press **ENTER**.
2. Use the **ROCKER** to enter data, and press **ENTER**.

To delete a waypoint:

On the Review Waypoint page, use the **ROCKER** to highlight the **Delete** button, and press **ENTER**.

To access the Map window on the Review Waypoint page:

1. Press **FCTN** to highlight the Map window. You can pan the map, change the map range, or use the pointer to select a location.
2. Press **FCTN** to highlight the left side of the Review Waypoint page.

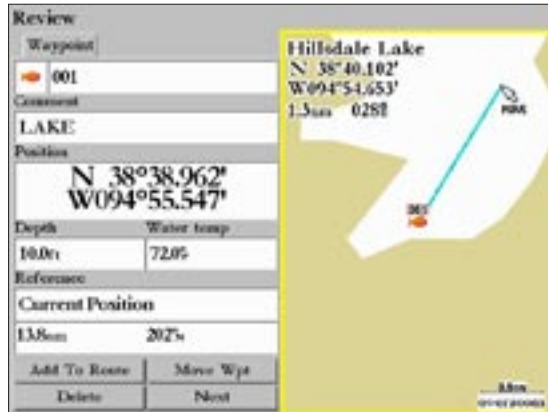


Map Window

You can modify a waypoint by moving or “projecting” the distance and bearing from its present location to a new location.

To move the waypoint on the map:

1. Highlight the **Move Wpt** button, and press **ENTER**. The Map window on the right side of the page is highlighted with the selected waypoint centered and highlighted on a map display. The word **MOVE** appears below the pointer.



2. Use the **ROCKER** to move the waypoint to the new location. The distance and bearing from the waypoint's current location appears in the upper left of the Map window.
3. Press **ENTER** to move the waypoint to the new location.
4. Press **FCTN** to return to the left side of the Review page.
5. Highlight **OK** or **Next**, and press **ENTER** to save the new location.

The **Reference** field displays the waypoint distance and bearing from your current location. You can also reference the waypoint location from another waypoint, map location, or category from a data card.

To reference a waypoint from another item:

1. On the Review Waypoint page, highlight the **Reference** field, and press **ENTER**. The Find From Current Position page appears.
2. Select a category, and press **ENTER**. For some categories, you may need to select multiple subcategories. When selected, the Review Waypoint page displays the Reference field with the waypoint's distance and bearing from that point.
3. To reference from a Map Position, use the **ROCKER** to select the Reference position, and press **ENTER**. As you move the pointer around the map, the data changes to show the distance and bearing.

Waypoint Lists

The Points tab on the GPSMAP 3005C's Main page has two sub tabs, **User** and **Proximity**, which allow you to manage a large number of waypoints quickly and efficiently. The Proximity sub tab also provides a continuously updated proximity waypoint alarm function that can be used to define an alarm circle around submerged hazards or shallow waters.



To access the Points sub tabs from the Main Menu:

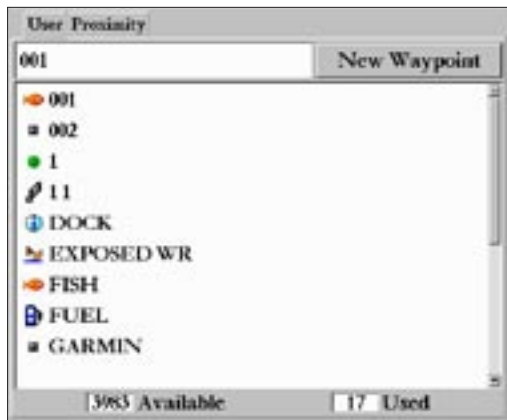
1. Press and hold **ADJ/MENU** for two seconds to display the Main Menu page.
2. Use the **ROCKER** to highlight the **Points** tab, and highlight either the **User** or **Proximity** sub tab.

User Waypoint List

The **User** sub tab on the **Points** tab displays a master list of all waypoints currently stored in memory. From the User list, you can review, edit, rename, or delete individual waypoints, or delete all user waypoints. The number of available and used waypoints are displayed at the bottom of the User sub tab. Stored waypoints are arranged in numeric/alphabetical order.

To scroll through and review the waypoint list:

1. Use the **ROCKER** to highlight the **Points** tab on the Main Menu, and then highlight the **User** sub tab.
2. Press Up or Down on the **ROCKER** to scroll through the list of waypoints; press Right or Left on the **ROCKER** to scroll by page.



User Waypoint List

3. Press **ENTER** to review the highlighted waypoint on the Review Waypoint page. See page 20 for information on reviewing and editing waypoints.
4. Highlight **Next** on the Review Waypoint page, and press **ENTER** to return to the waypoint list. The next waypoint in the list is automatically highlighted.

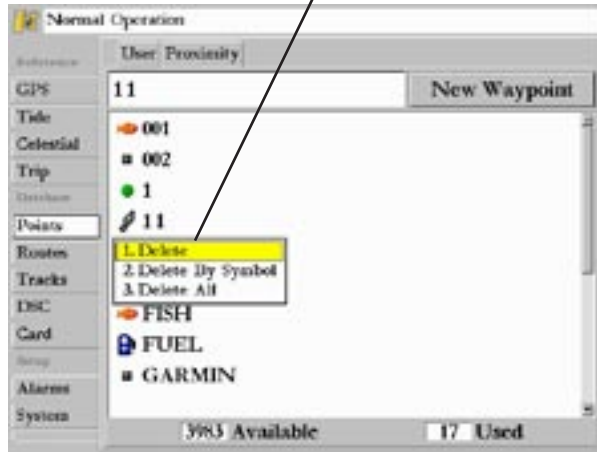
The following options are available by pressing **ADJ** while highlighting a waypoint on the **User** sub tab:

- **Delete Waypoint**—deletes the selected waypoint from the 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.

When a waypoint is deleted from the list, it cannot be recovered from the unit. It is advisable to save important waypoints to a data card, or write them down.

To delete a single waypoint from the User sub tab:

1. Use the **ROCKER** to highlight the waypoint to delete.
2. Press **ADJ**, highlight **Delete Waypoint**, and press **ENTER**.
Or
Press **ENTER**, highlight the **Delete** button on the Review Waypoint page, and press **ENTER**.

Waypoint Delete Options**To delete waypoints by symbol:**

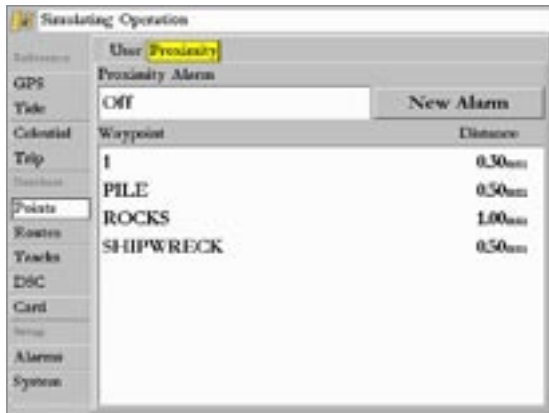
1. On the **User** sub tab, highlight the waypoint to delete, and press **ADJ**.
2. Highlight **Delete By Symbol**, and press **ENTER**.
3. Use the **ROCKER** to highlight the symbol of the waypoint(s) to delete, and press **ENTER**.
4. Press **ENTER** to confirm. Choose **Cancel** or press **QUIT** to cancel.

To delete all user waypoints:

1. On the **User** sub tab, press **ADJ**.
2. Use the **ROCKER** to highlight **Delete All**, and press **ENTER**.
3. Highlight **OK**, and press **ENTER** to confirm.

Proximity Waypoint List

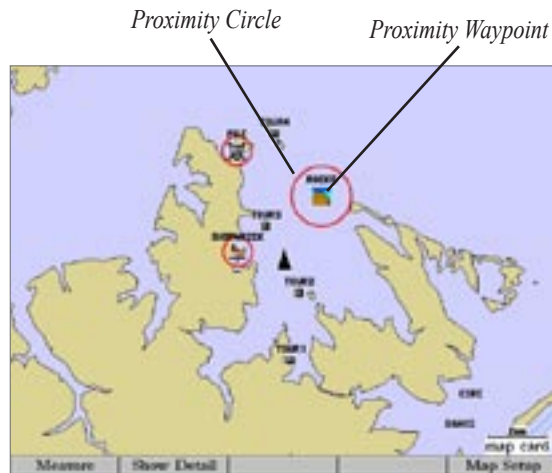
Use the **Proximity** sub tab on the **Points** tab to define an alarm circle around a stored waypoint position. The alarm circle can help you avoid reefs, rocks, or restricted waters. You can add proximity alarms to a maximum of 10 waypoints or on-screen map items, with a maximum alarm radius of 99.99 nautical or statute miles or kilometers.



Proximity sub tab

If a proximity alarm circle overlaps an existing alarm circle, the message “Proximity Overlaps Another Proximity Waypoint” is displayed. Because the unit only alerts for one of the overlap

points, use caution when navigating in these areas. If you enter a red alarm circle overlap, you are alerted only to the closest proximity waypoint.



To add a proximity waypoint:

1. Use the **ROCKER** to highlight the **New Alarm** button on the **Proximity** sub tab, and press **ENTER**. The Find From Current Position page appears.
2. Highlight a category on the **Find From Current Position** list, and press **ENTER**.

- Use the **ROCKER** to highlight a waypoint or map item from the list, and press **ENTER**. The Review page appears for the selected waypoint or map item within a red circle.
- With the **OK** button highlighted, press **ENTER** to confirm. The **Distance** field is highlighted.
- Press **ENTER** to begin entry of the proximity radius.
- Use the **ROCKER** to enter a distance (up to 99.99 units), and press **ENTER** when finished.

To turn proximity alarms on or off:

- Use the **ROCKER** to highlight the field below **Proximity Alarm** on the **Proximity** sub tab, and press **ENTER**.
- Select **ON** or **OFF**, and press **ENTER**.

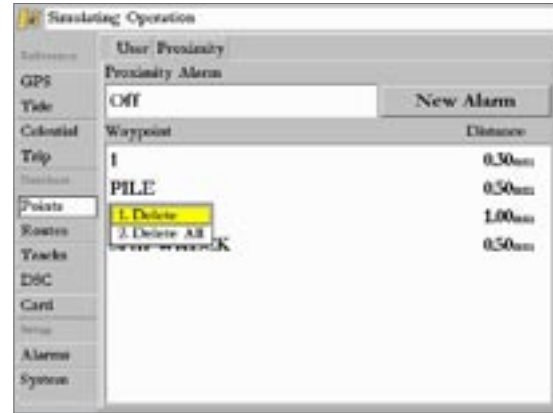
The following options are available when you highlight a point on the **Proximity** sub tab, and press **ADJ**:

- Delete**—removes selected waypoint from the proximity list.
- Delete All**—removes all waypoints from the proximity list.

If you review a waypoint from the proximity list and delete the point using the **Delete** button, the waypoint is deleted and it is removed from the proximity list.

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

- Use the **ROCKER** to highlight the proximity waypoint to clear, and press **ADJ**.



- To clear a single alarm, highlight **Delete**, and press **ENTER**. To clear all proximity waypoints, highlight **Delete All**, and press **ENTER**.
- Use the **ROCKER** to highlight **OK**, and press **ENTER** to confirm. Otherwise, highlight **Cancel** and press **ENTER**, or press **QUIT** to stop the deletion.

Navigating to a Destination

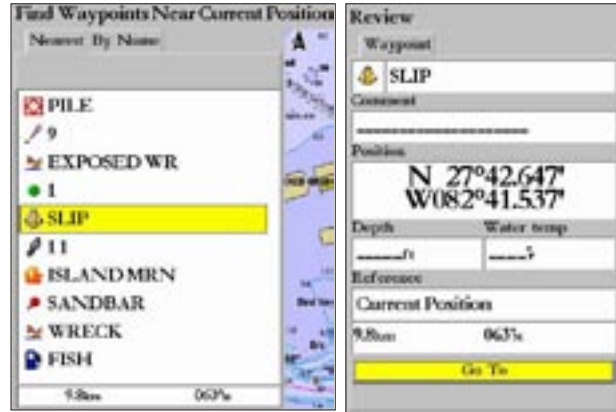
Using the NAV key, the GPSMAP 3005C provides four primary ways to navigate to a destination—Go To Point, Follow Track, TracBack, and Follow Route. When you are actively navigating, you see a straight line that always runs from your current location to the destination on the Map page. The easiest method for selecting a destination is the Go To function, which lets you select a destination point, then quickly sets a direct course from your present location. If you highlight a point on a list or the map and press NAV, **Go To <point name>** appears 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 **NAV**.
2. Highlight **Go To Point**, and press **ENTER**.
3. On the Find From Current Position page, highlight **Waypoints**, and press **ENTER**. (You can also choose to go to other points from this list, such as Cities or Tide Stations.)

4. Select a waypoint from the **By Name** or **Nearest** tab list, and press **ENTER** to display the Review Waypoint page for the selected waypoint.
5. With the **Go To** button highlighted, press **ENTER** to begin navigation.



To stop navigation:

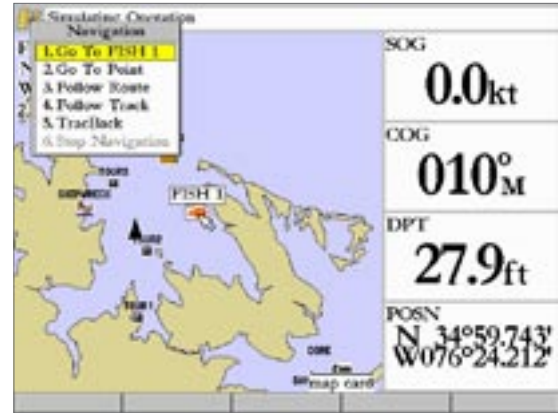
1. Press **NAV**.
2. Highlight **Stop Navigation**, and press **ENTER**.

Selecting a Go To Destination Graphically

A graphical Go To can be used to select one of three items from the map display—an existing waypoint, on-screen map items such as rivers, cities, nav aids, or a new map point. If you select a map item as the Go To destination, the GPSMAP 3005C automatically uses the name of the map item, but the point is not stored in the waypoint list. See page 18 for information on creating waypoints using map items. If you select a new map point (non-map item) as the Go To destination, the GPSMAP 3005C automatically creates a waypoint named **MAP** at the pointer location.

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

1. Use the **ROCKER** to highlight the waypoint or map item on the screen, and press **NAV**.
2. Highlight **Go To <waypoint name>**, and press **ENTER**.



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

1. Use the **ROCKER** to move the pointer to the location you want, and press **NAV**.
2. With **Go To MAP Point** highlighted, press **ENTER**.

To stop navigation:

1. Press **NAV**.
2. Highlight **Stop Navigation**, and press **ENTER**.

Follow Track and TracBack Navigation

A track is an electronic breadcrumb trail recording or history of your path. The track currently being recorded is the “Active” track. An Active track can be stored in the unit and when stored, is referred to as Saved. Both the Follow Track and TracBack options navigate in the same way. Follow Track uses stored or “Saved” tracks; TracBack uses your current or “Active” track.

The TracBack function allows you to retrace your path using the track log automatically stored in the receiver’s memory, which eliminates the need to store waypoints along the way. TracBack routes are created by reducing your track log into a route and activating an inverted route. When active, a TracBack route leads you through your stored track log points, so it is a good idea to clear the existing track log before you start your current trip.

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

1. Press **ADJ/MENU** for two seconds to display the Main Menu.
2. Using the **ROCKER**, highlight the **Tracks** tab, and then highlight the **Active** sub tab.
3. Highlight the **Clear** button, and press **ENTER**.
4. Highlight **OK**, and press **ENTER** to clear the track log.



Clearing the track log

You must save a track log before you can use the **Follow Track** feature. The Save feature allows you to store up to 15 track logs from certain times and dates.

To save a track log:

1. Press **ADJ/MENU** for two seconds to display the Main Menu.
2. Use the **ROCKER** to highlight the **Tracks** tab, and then highlight the **Active** sub tab.

- Highlight **Save**, and press **ENTER**. The Save Back Through window appears.



- Highlight the time, date, or **Entire Log**, and press **ENTER**. The track begins saving, and the Saved Track page appears. The default name, distance, number of points (700 maximum), and a map overview are displayed.
- To change the name of the saved track, highlight the **Name** field and press **ENTER**, make any changes, and press **ENTER** again.
- To choose the color used to display the saved track line on the map and highway, highlight the **Color** field and press **ENTER**, choose a color, and press **ENTER** again.
- To display the track on the Map and Highway pages, highlight the check box to the left of **Show on map and highway**, and press **ENTER**.
- Highlight **OK**, and press **ENTER** to save the track log.



You must save a track before using the **Follow Track** option. If there are no saved tracks, the message “There are no Saved Tracks to follow” appears.

To activate a Follow Track using the NAV key:

- Press **NAV**, highlight **Follow Track**, and press **ENTER**. The Select Track page appears.
- Highlight the track you want to follow, and press **ENTER**.
- To invert the Follow Track (navigate it in the reverse direction), press **NAV**, highlight **Invert Route**, and press **ENTER**.

To activate a TracBack using the NAV key:

1. Press **NAV**.
2. Highlight **TracBack**, and press **ENTER**. The TracBack Through window appears.
3. Highlight the time, date, or **Entire Log**, and press **ENTER**.

**TracBack Window****To stop TracBack navigation:**

1. Press **NAV**.
2. Highlight **Stop Navigation**, and press **ENTER**.

TracBack Tips

When a TracBack is active, the GPSMAP 3005C takes the track log stored in memory and divides it into segments called legs. Up to 300 temporary turns (BEGIN, TURN 1, TURN 2,....., TURN X,

END) are created to mark the most significant features of the track log 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 starting point.
- The **Record Mode** option on the track log setup page must be set to **Fill** or **Wrap** (see page 67).
- At least two track log points must be stored in memory to create a TracBack route.
- If the track log **Interval** field 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, TracBack draws 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, 300 waypoints might not mark your path accurately. The receiver then assigns the 300 waypoints to the most significant points of your track, and simplifies segments with fewer changes in direction.

For more information on setting up the Track options and saved tracks, see page 67-68.

Man OverBoard (MOB)

The Man OverBoard function on the GPSMAP 3005C enables you to simultaneously mark and set a course to a location for quick response to emergency situations.

To activate the MOB function:

1. Press and hold the **NAV/MOB** key for two seconds.
2. Highlight **Yes** and press **ENTER** to confirm and begin navigating to the MOB position.



When a MOB is activated, a MOB waypoint with an international MOB symbol is created and the unit is on an active navigation to that point. Use any of the Navigation pages to guide you back to the MOB point. The MOB waypoint is stored in the waypoint list and you can delete or edit it like any other waypoint. See page 20 for more information on editing or deleting waypoints.

To stop navigation to the MOB location:

1. Press **NAV/MOB**.
2. Highlight **Stop Navigation**, and press **ENTER**.

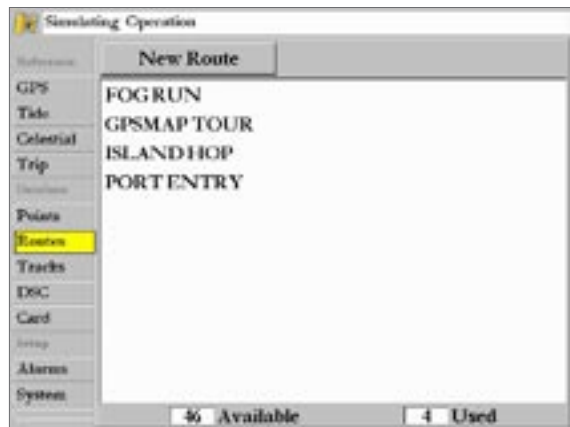


Routes

The last way to navigate to a destination is to create a user-defined route. You can create and store up to 50 reversible routes (numbered 1-50), with up to 300 points each.

Routes can be created and modified in two ways. The first method is to use the **Map** option on the Route page. This method allows you to see each route on a map with a waypoint list as you create, review, or modify the route. The second method is to use the **Numbers** option on the Route page. This method allows you to see a list of the route points, distance, and course information as you create, review, or modify the route.

Route functions are accessed through the **Routes** tab on the Main Menu page, the **NAV** key, or through the Highway page.



Main Menu—Routes Tab

To create a route graphically using the Route map window:

1. Press **ADJ/MENU** for two seconds to display the Main Menu.
2. Use the **ROCKER** to highlight the **Routes** tab.
3. Highlight the **New Route** button, and press **ENTER**. The Map window is highlighted.



4. To add an existing waypoint or map item to the route, use the **ROCKER** to highlight a waypoint or map item on the screen, and press **ENTER**. See page 16 for information on creating a waypoint from a map item.

Or

To add a new waypoint to the route, use the pointer to select the map location, and press **ENTER**.

As you add each new waypoint to the route, the list to the left shows the waypoint name. The bottom of the display shows you the number of available and used points. A yellow/red route line appears on the map to indicate each completed leg, and a blue dotted line appears to indicate the distance and bearing to the arrow pointer from the last route waypoint. Repeat this step until you finish defining all route waypoints.

5. When finished, press **QUIT** three times to return to the Route List page.
Or
Press **FCTN** to highlight the Route waypoint list and on-screen buttons.

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

1. Press **ADJ/MENU** for two seconds to display the Main Menu.
2. Use the **ROCKER** to highlight the **Routes** tab.
3. Highlight the **New Route** button, and press **ENTER**.
4. Press **FCTN**, highlight the **Numbers** button, and press **ENTER** to display the Route page.
5. Use the **ROCKER** to highlight the first field under the word "Waypoint," and press **ENTER**. The Find From Current Position page appears.

6. Highlight **Waypoints**, and press **ENTER**. (You can also choose from other points, such as Cities or Nav aids.)
7. Select a waypoint from either the **By Name** or **Nearest** tab, and press **ENTER**.



*Choose a waypoint from either the **By Name** or **Nearest** tab list.*

8. On the Review Waypoint page, **OK** is automatically highlighted. Press **ENTER** to add the point to the route.

As you add each new waypoint to the route, the Route Numbers List shows the waypoint/map item name, leg distance, course between points, and a selectable column to display other route information (see page 42). The bottom of the display shows totals for each column.

Route			
GPSMAP TOUR	Map	Plan	
Waypoint	Distance	Course	Time
TOUR1	0.0mi	017°	07:13:54
TOUR2	2.3mi	344°	07:13:54
TOUR3	4.8mi	015°	07:14:54
TOUR4	7.9mi	339°	07:14:54
TOUR5	17.7mi	351°	07:14:54

	17.7mi	351°	07:14:54

Route Numbers List

9. Repeat steps 5-8 until all route points are entered. Press **QUIT** to return to the Route page.

Following a Route

After you create a route, it can be activated and used for navigation with the **NAV** key. A route can be followed in the same sequence as it was originally created, inverted and followed from the end point back to the beginning point, or re-evaluated.

To activate and follow a route:

1. From any page, press **NAV**, highlight **Follow Route**, and press **ENTER**. If you highlight a route from the Route List or Route Review page and press **NAV**, the window automatically displays Follow <route name>.
2. Highlight the route you want to navigate, and press **ENTER**.



To stop navigating a route:

Press **NAV**, highlight **Stop Navigation**, and press **ENTER**.

The following options are available by pressing **NAV** and selecting an option while navigating a route:

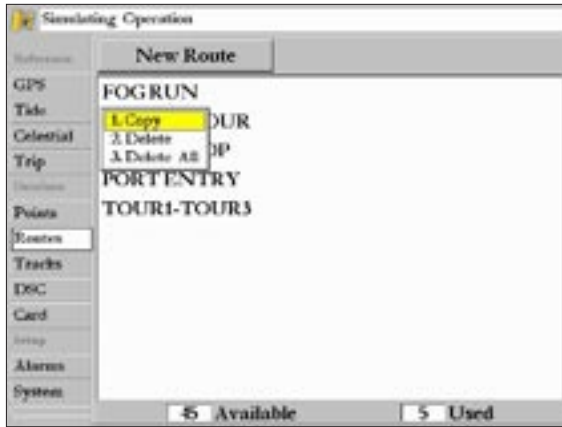
- **Invert Route**—reverses the route to follow it from the end point back to the beginning.
- **Re-Evaluate Route**—recalculates and reactivates the current route data. Selects the route leg closest to your current position as the active leg (the active leg defines the current from and to waypoints).

Route List Page

The GPSMAP 3005C's Route List page (Routes tab on the Main Menu) displays all the routes stored in memory and a descriptive name for each route. By pressing **ADJ** while highlighting a Route name on the Route List page, the following menu options appear: **Copy**, **Delete**, or **Delete All**.

To copy a route:

1. From the route list, use the **ROCKER** to highlight the route you want to copy, and press **ADJ**.
2. Highlight **Copy** and press **ENTER**. The Route Review page for the new route appears. Copy uses the same route name with an additional number, starting at 1, at the end of the route name.



To delete a route:

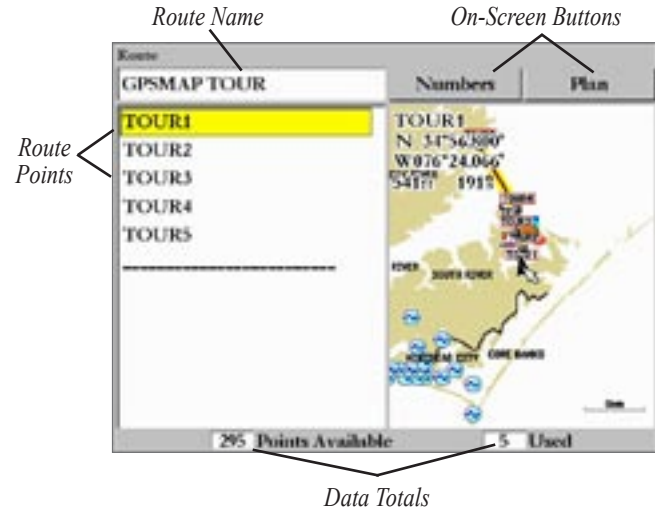
1. From the route list, use the **ROCKER** to highlight the route you want to delete, and press **ADJ**.
2. Highlight **Delete**. Highlight **OK**, and press **ENTER** again to confirm.

To delete all routes:

1. From the route list, press **ADJ**.
2. Select **Delete All**. Highlight **OK**, and press **ENTER** again to confirm.

Route Review Page

After you create or copy a route, you can use the Route Review page to edit a selected route.



To access the Route Review page:

1. Press and hold **ADJ/MENU** for two seconds to display the Main Menu.
2. Use the **ROCKER** to highlight the **Routes** tab.
3. Highlight a route to review, and press **ENTER**.

You can use the Route Review page to enter a 15-character name for any listed route. By default the name includes the first and last points in the route.

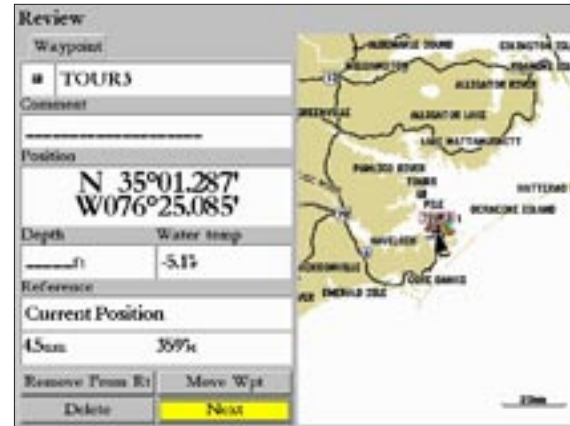
To enter a custom route name:

1. On the Route Review page, highlight the name field, and press **ENTER** to begin editing.
2. Use the **ROCKER** to enter the custom route name, and press **ENTER** when finished.

When you are on the Route Review page, you can review the route points (waypoints or map items) one at a time from the list.

To review individual route points:

1. Highlight a route point. The selected point is highlighted on the Map window.
2. Press **ENTER**. The Review Waypoint page appears.
3. Highlight **Remove From Rt** (removes the point from the route), **Move Wpt** (move the point), **Next** (highlight the next point on the route list), or **Delete** (permanently deletes the waypoint from the unit), and press **ENTER**. If the route point is a user waypoint, you can edit any of the waypoint properties on the Review Waypoint page (see page 20).



When you return to the route point list, the next point in the route is automatically highlighted (if **Next** is selected). You can review each point on the route by repeatedly pressing **ENTER**.

Editing Routes

From the Route Review page, you can choose to edit the route to add, remove, or move points using the detailed Numbers list or graphically from the Map window. You can also plan the route to enter fuel and trip planning information.

To graphically edit a route on the map:

1. On the routes list, highlight the name of the route you want to edit, and press **ENTER**.
2. Press **FCTN** to highlight the Map window.

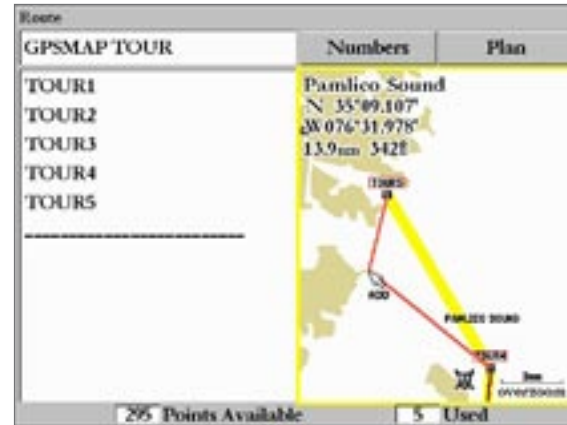
Use the **ROCKER** to highlight a point to review (waypoint or map item). You can also use the map pointer to insert a new route point on a route leg or review the waypoint or map item.

To edit a route point from the Map window:

1. Use the **ROCKER** to highlight the route point you want to edit, and press **ADJ**. A menu of editing choices appears.
2. Select **Remove** to remove the route point.
Or
Select **Move** (user waypoints only) to move the waypoint, use the **ROCKER** to move it to the new location, and press **ENTER**.
Or
Select **Add** (to beginning or end points only), use the **ROCKER** to highlight the new beginning or end point, and press **ENTER**. If the point is a new map waypoint, highlight **OK**, and press **ENTER**.
3. Press **QUIT** to stop adding beginning or end points.

To insert a new point between two existing route waypoints from the Map window:

1. Use the **ROCKER** to select the leg in which you want to insert the new waypoint (the route line highlights and changes to a dotted line when the leg is selected), and press **ENTER**.
2. Move the pointer to the new map location, existing waypoint, or map item (ADD appears below the arrow, and the route lines move with the arrow), and press **ENTER**.
3. Press **QUIT** to return to the Route List page.



To edit a route from the route review list:

- From the route review list, use the **ROCKER** to highlight the route point you want to edit, and press **ADJ**. A menu of editing choices appears.



- Select **Remove** to remove the route point.
Or
Select **Add Before** to insert a point between two existing points, and then on the Find From Current Position list, highlight **Waypoints**, and press **ENTER**. (You can choose other points, such as Cities and Tide Stations, from this list).
- Select the point you want to add, and press **ENTER** twice.

Planning Routes

The route review numbers list displays trip-planning information for each leg or the entire route. You can access the Planning setup from either route review list and the data can be viewed from the route numbers list only. You can change the far right data column to display ETA (Estimated Time of Arrival at point), Fuel (to point), Leg Distance, Leg Fuel, Leg Time, Sunrise and Sunset (at point location), and Time To (point).

To use the Plan Route feature:

- From the Route Review list, use the **ROCKER** to highlight the **Plan** button and press **ENTER** to display the Plan Route page.

Plan Route	
Speed	Depart Time
0.0kt	08:41AM
Fuel Flow	Depart Date
0.0	01-JUN-04

- Use the **ROCKER** to enter planning information figures for **Speed**, **Fuel Flow**, **Depart Time**, and **Depart Date**.
- When finished, press **QUIT** to return to the Route Review page.

To change the data column (Plan Route feature):

1. On the Route Numbers list, highlight the adjustment button to the right of the **Course** and press **ENTER**. The middle title is highlighted. One of nine available planning figures appears to the right of each route waypoint and its distance.

Planning features

Route			
GPSMAP TOUR	Map	Plan	
Waypoint	Distance	Course	⬅ Select ➡
TOUR1	0.0mi	017%	07:13:56
TOUR2	2.3mi	344%	07:13:56
TOUR3	4.8mi	015%	07:14:56
TOUR4	7.9mi	339%	07:14:56
TOUR5	17.7mi	---	07:14:56
-----	---	---	---
	17.7mi	351%	07:14:56

2. Press Left or Right on the **ROCKER** to select the planning feature, and press **ENTER** when finished.



NOTE: 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 on available information for your vehicle (operators manual, performance specifications) and note the units of measure (gallons, liters, and so on).

MAIN PAGES

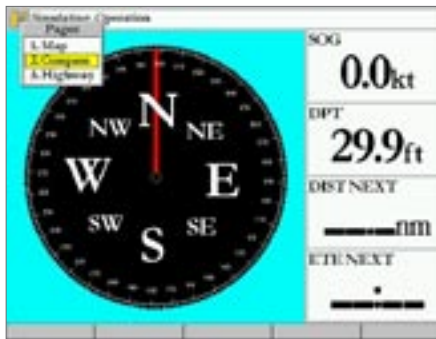
The GPSMAP 3005C has three Main pages that are always available: Map page, Compass page, and Highway page. Press **PAGE** to cycle through the main pages. If you have a Garmin Sonar Module with transducer connected to the GPSMAP 3005C, a Sonar page is inserted in the page sequence. For more information on the Sonar page, see the “Using Sonar” section on page 91.

When the unit is turned on, the first Main page displayed is the Map page. As you add optional hardware to the MFD or Garmin Marine Network, additional Main pages, functions (page 47), or adjustments (page 47) may appear automatically. For specific information on additional Main page operations, refer to the documentation that comes with the optional hardware.

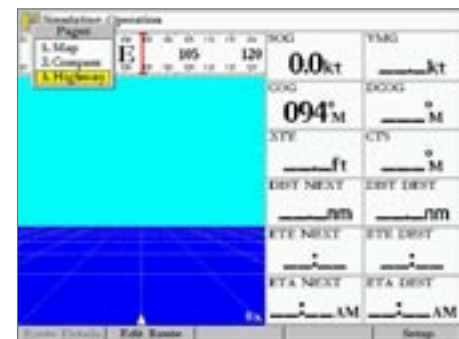
Pages list



Map Page



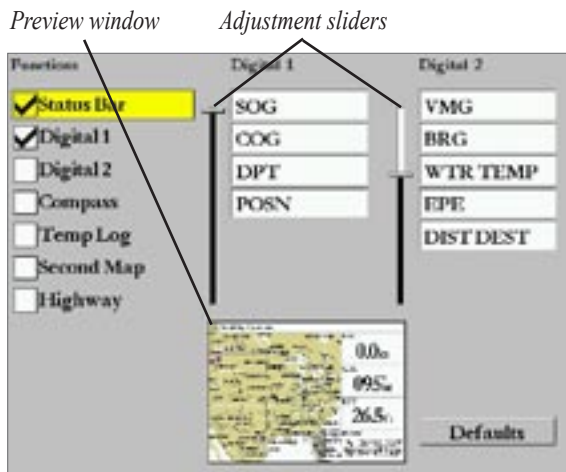
Compass Page



Highway Page

Configuring Main Pages

You can customize each Main page to fit your navigational needs, and you can modify digital data fields and add additional secondary Functions to each of the Main pages. As you add optional hardware to the MFD or Garmin Marine Network, additional function choices may appear automatically.

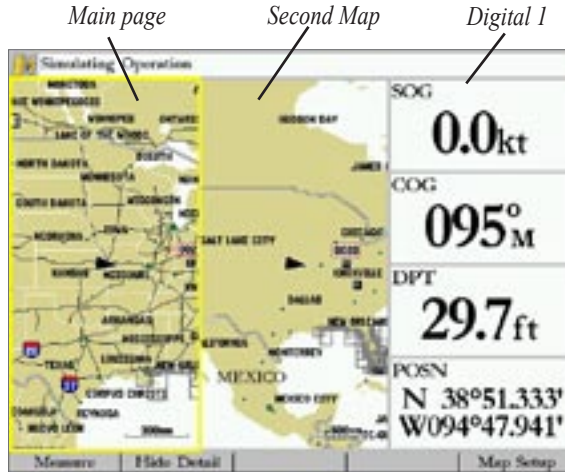


Configuration Page

You can also display other functions such as a Compass, Temperature Log (if inputting Garmin or NMEA Sonar data), or a Second Map (Map page only). Digital data fields (Digital 1 and Digital 2) can be changed in size and type of data that is displayed in each data field. As you add or remove functions and data fields, a preview window shows the layout.

To add or remove functions on a Main page:

1. Press and hold **DATA/CNFG** for two seconds to display the Configuration page.
2. Using the **ROCKER**, highlight the function you want to add or remove, and press **ENTER**. Only functions with a check mark in the check box to the left of the name appear on the Main page. The Main page to which you are adding functions always displays either on the left side (two or three functions) or in the upper left (four or more functions).
3. When finished, press **QUIT** to return to the Main Menu page.



Map Page with Second Map and Digital 1

To change the size of the Digital data fields:

1. Press and hold **DATA/CNFG** for two seconds to display the Configuration page.
2. Using the **ROCKER**, highlight the **Digital 1** or **Digital 2** adjustment slider, and press **ENTER**.

3. Press **Up** on the **ROCKER** to display larger text with fewer data fields; press **Down** on the **ROCKER** to display smaller text with more data fields. A preview of the data fields appears below in the Preview window. As you adjust the data field size, the configurable data fields automatically appear in the Digital 1 and Digital 2 lists.
4. Press **QUIT** to exit the slider adjustment. Press **QUIT** again to return to the Main page.

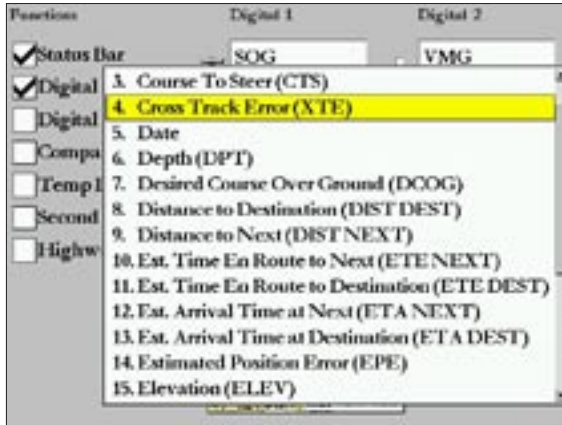


Digital 1 with large data fields

Digital 2 with small data fields

To change Digital 1 or Digital 2 data fields:

1. Press and hold the **DATA/CNFG** key for two seconds to display the Configuration page.
2. Using the **ROCKER**, highlight the data field you want to change, and press **ENTER**.



3. Press Up or Down on the **ROCKER** to highlight the type of data you want to display, and press **ENTER**. To exit, press **QUIT**. Available data field choices may include:
 1. Bearing (BRG)
 2. Course Over Ground (COG)
 3. Course To Steer (CTS)
 4. Cross Track Error (XTE)

5. Date
6. Depth (DPT)*
7. Desired Course Over Ground (DCOG)
8. Distance to Destination (DIST DEST)
9. Distance to Next (DIST NEXT)
10. Est. Time En route to Next (ETE NEXT)
11. Est. Time En Route to Destination (ETE DEST)
12. Est. Arrival Time at Next (ETA NEXT)
13. Est. Arrival Time at Destination (ETA DEST)
14. Estimated Position Error (EPE)
15. Elevation (ELEV)
16. Heading (HDG)
17. Position (POSN)
18. Speed Over Ground (SOG)
19. Speed Through Water (STW)*
20. Time of Day (TIME)
21. Turn
22. Velocity Made Good (VMG)
23. Voltage (VOLT)
24. Water Temperature (WTR TEMP)*

*Requires input of Garmin or NMEA Sonar Data.

To restore the factory default configuration:

1. Press and hold **DATA/CNFG** for two seconds to display the Configuration page.
2. Use the **ROCKER** to highlight the **Defaults** button, and press **ENTER**.

Using Function Windows

You can add additional functions to any of the Main pages. See page 44 for information about adding functions. After you configure a Main page, press **FCTN** to cycle through the available functions. A yellow box highlights around the active function. Each time you press **FCTN**, the highlight moves in a clockwise motion (when three or more functions are displayed).



To cycle through Main page functions:

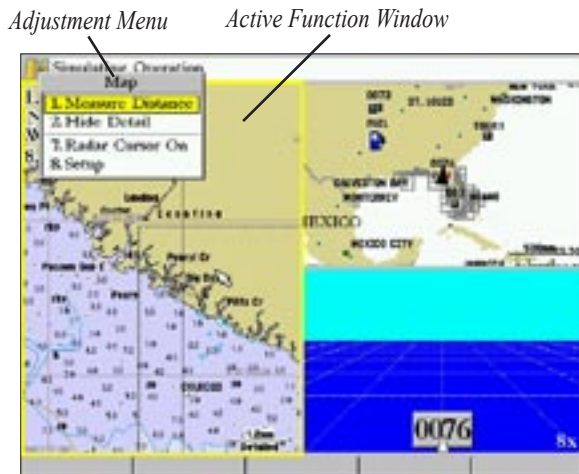
1. Press **FCTN**. The Functions list appears with the next function on the list highlighted.
2. Each time you press **FCTN**, the next function is highlighted. Press **ENTER** when the function you want is highlighted. Functions that are not available appear dimmed and cannot be selected.

Function Adjustments

Each active function (except the Compass) has specific adjustment (**ADJ** key)/Soft Key options and Main page features. You can use options from the adjustment menu to activate adjustments or features for the active (highlighted) function. As you add optional hardware to the MFD or Garmin Marine Network, adjustment menu choices appear automatically. For specific instructions on adjustments and features for the highlighted function, refer to the specific section (or manual) for that Main page.

To display adjustment options for the active function:

1. Press **ADJ** to display the available options window. The adjustment menu appears for the highlighted or active function.
2. Use the **ROCKER** to highlight an option, and press **ENTER**.



DATA Key

Use the **DATA** key to display the primary view of a Main page in full screen mode, without Functions, the status bar, or Digital Data fields. Press **DATA** again to return to the previous view.

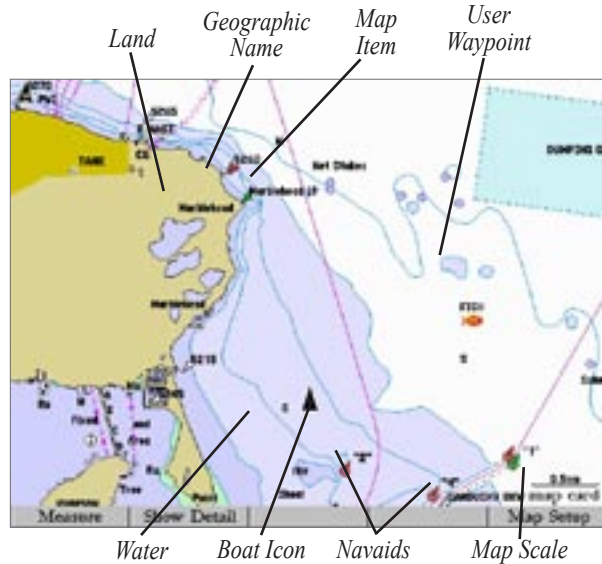
Map Page

The Map page provides a comprehensive display of electronic cartography, plotting, and navigational data. When using the GPSMAP 3005C with the optional BlueChart data or MapSource software, the map display shows your boat on a digital chart, complete with geographic names, map items, nav aids, and other chart features. See the *BlueChart User's Guide* for additional information on BlueChart data. The GPSMAP 3005C also plots your track and displays any routes and waypoints you create. You can use the on-screen pointer to pan and scroll to other map areas, determine the distance and bearing to a location, and perform various route and waypoint functions.

When the pointer is active, an additional data window appears in the upper left of the map to indicate location, any identifying text, range, and bearing to the pointer or a selected waypoint or map item. The map range appears at the lower right of the map.

Use the Up and Down **RANGE** keys and the **ROCKER** to select zoom ranges and move the pointer. Two basic map operating modes, Position mode and Pointer mode, determine what cartography (map data) is shown on the map display. Position mode pans the cartography to keep the present position marker within the display area, whereas Pointer mode pans the cartography to keep the pointer within the display area.

The GPSMAP 3005C starts in the Position mode, with your location centered on the map display.



Press the **ROCKER** to enter Pointer mode. In Pointer mode:

- The pointer can be moved over the map display using the **ROCKER**.
- When the pointer reaches the edge of the display, the map scrolls forward under the pointer. Keep in mind that the boat icon moves with the map scrolling and may go off the display screen (you may not be able to see your present location).
- When the pointer is stationary, a fixed coordinate location appears in the position field. Note that the distance and bearing changes as the boat's location changes.
- Whenever you change the range in Pointer mode, the pointer is centered on the screen.
- To return to Position mode, press **QUIT**.



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

Using the Map Pointer

Controlled by the **ROCKER**, the pointer is an important tool that can be used to pan to other map locations, mark and edit waypoints and routes, and review position data of on-screen map items and waypoints. For more information about the Map Pointer, see the “Using the Map Pointer” section on page 11.

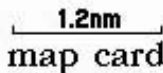
Selecting Map Ranges

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 Up and Down **RANGE** keys, with the current scale displayed at the lower right of the Map page.



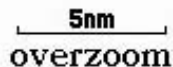
8nm

Using Built-In Basemap



1.2nm
map card

Using BlueChart/MapSource Data



5nm
overzoom

Overzoom, no additional data

The GPSMAP 3005C's system has a built-in worldwide database, with more detailed coverage available through the use of the optional BlueChart or MapSource data. The GPSMAP 3005C displays cartography as long chart information is available for the selected range. Map coverage conforms to the following conditions:

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

To select a map range:

Press the Up **RANGE** key to zoom out and the Down **RANGE** key to zoom in.



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

Map Page Options

The Map page provides access to functions and features relating to the Map page (or Map Function window) using the **ADJ** key and Soft Key options.

The available options are: **Measure Distance**, **Hide/Show Detail**, and **Setup**. As you add optional hardware to the MFD or Garmin Marine Network, adjustment menu choices may appear automatically.

You can customize the Map page to display other functions (page 44) and different sizes or types of Digital Data fields (page 45).

Measure Distance—allows you to measure the distance and bearing between two points.

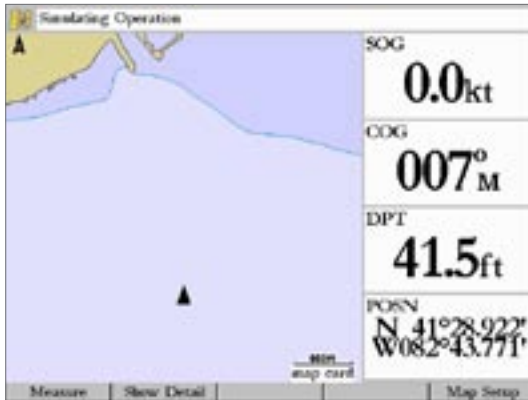
To measure the distance/bearing between two points:

1. Press **ADJ** to display the Map adjustment menu.
2. Highlight **Measure Distance**, and press **ENTER**, or press the **Measure** Soft Key. An on-screen pointer appears on the map display at your present location with a blue thumbtack symbol to show the From reference point.
3. Move the pointer to the reference point (the point from which you want to measure), and press **ENTER**. The blue thumbtack symbol now appears at that point.

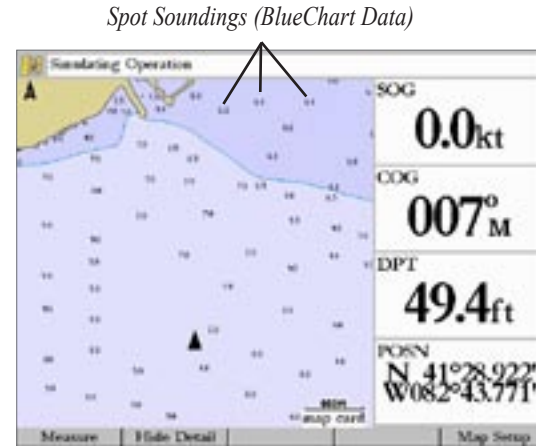
4. Move the pointer to the point that you want to measure to. The bearing and distance from the reference point and pointer coordinates are displayed in the upper left of the Map display. Press **QUIT** to finish.



Hide Detail/Show Detail—toggles between showing/not showing Spot Sounds and Map Outlines for easier viewing. This setting only affects the currently selected Map. If you have a Second Map Function displayed, you can set one map to show detail and one map to hide detail.



Map with Detail Hidden



Map with Detail Shown

Setup (Map Setup)—allows you to configure the map display preferences, including map detail, map orientation, automatic zoom, and various map items and points. When you select **Map Setup**, the vertical list of Main Menu tabs appears, with the **Map Setup** tab selected. The Setup options are arranged in a horizontal, easy-to-use sub tab format, making it easier to organize and use the various settings. Changes made from the Map Setup affect all maps.



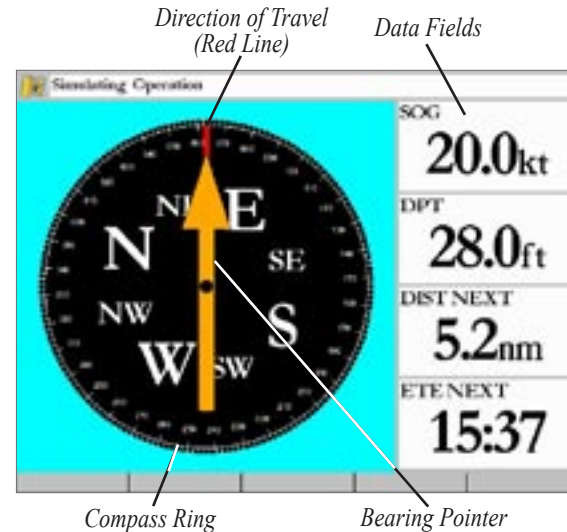
Main Menu—Map Tab

To change a Setup feature:

1. Press **ADJ** to display the Map adjustment menu.
2. Highlight **Setup**, and press **ENTER**, or press the **Map Setup** Soft Key. The Main Menu page appears with the Map tab highlighted.
3. Press Left or Right on the **ROCKER** to highlight a sub tab, press Up or Down on the **ROCKER** to highlight the setting you want to change, and press **ENTER**.
4. Press Up or Down on the **ROCKER** to highlight a setting, and press **ENTER**.
5. To exit, press **QUIT**.

Compass Page

The GPSMAP 3005C features two different navigation pages: Compass and Highway. Whenever a NAV Go To, Follow Track, TracBack, or Follow Route are activated, the Compass page guides you to your destination with digital readouts and a graphic compass display, which includes a bearing pointer.



For a GPS unit to navigate properly, it has to be moving. When you are moving, the orange Bearing Pointer points toward your destination, while the Compass Ring reflects the direction you are traveling with a red vertical line at the top of the Compass Ring. When you are headed directly toward your destination, the Bearing Pointer points toward the top of the display, aligned with the red vertical line displayed at the top of the Compass Ring. If you are not heading toward your destination, the Bearing Pointer turns, continuing to point toward your destination. To head toward your destination, turn until the Bearing Pointer is aligned with the red vertical line in the Compass Ring.

Along the right side of the display are the default data fields; the top field is speed. Also shown are the distance to your waypoint (DIST NEXT) and estimated time en route (ETE NEXT). The distance and en route time decrease as you near your destination.

The Bearing Pointer or Compass Ring may point in various directions when you are stationary or at very low speeds. When you start moving, the pointer is correct.

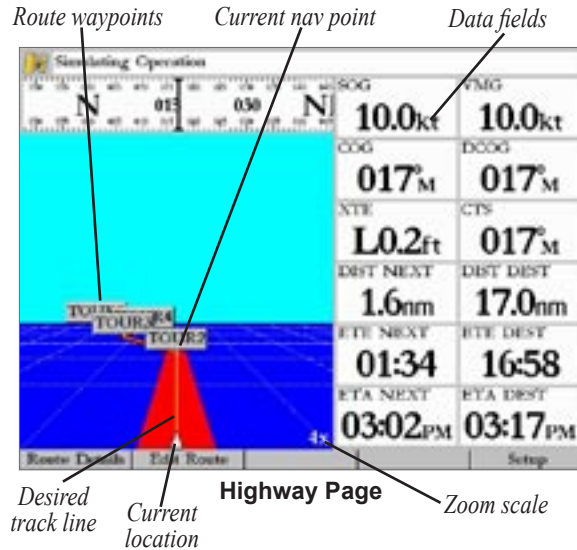
You can customize the Compass page to show other functions (page 44) and different sizes or types of Digital Data fields (page 45).

Highway Page

Whenever a Go To, TracBack or route is activated, the Highway page provides digital and graphic steering guidance to the destination with the Navigation page. The right side of the Highway page features configurable Digital Data fields that display useful navigation data. The left section of the screen 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 red “road” with a yellow line down the middle, which is your desired track line. You can also view Routes details, nearby waypoints not in the active route, Track Log points, and Saved Tracks.

The highway perspective range can 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.



Highway Page Options

The Highway page provides access to functions and features relating to the Highway page (or Highway Function window) using the **ADJ** key and Soft Key options.

The available **ADJ/Soft Key** options are: **Active Route Details**, **Edit Active Route**, and **Setup**. As you add optional hardware to the MFD or Garmin Marine Network, adjustment menu choices may appear automatically. You can also customize the Highway page to show other functions (page 44) and different sizes/types of Digital Data fields (page 45).

Active Route Details (Route Details)—displays details such as distance, course, and other useful information for each waypoint of the Active Route.

To change the highway perspective range:

Press the Up **RANGE** key to zoom out, or press the Down **RANGE** key to zoom in.

Route			
GPSMAP TOUR		Map	
Waypoint	Distance	Course	ETA
TOUR1	---	017°	---
▶ TOUR2	1.5km	344°	03:03
TOUR3	4.0km	015°	03:05
TOUR4	7.1km	339°	03:08
TOUR5	16.9km	---	03:18

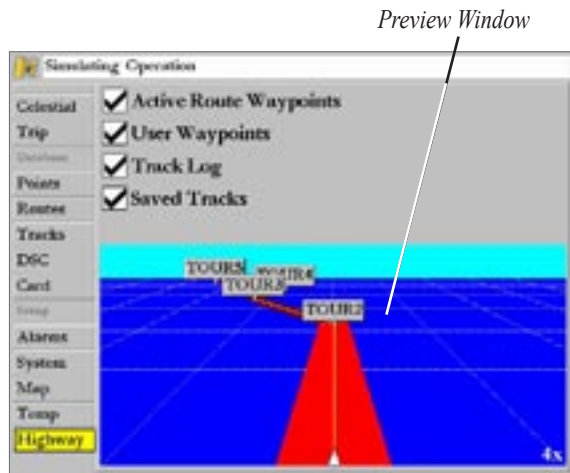
	---	---	---
		16.9km	351° 03:18

Active Route Details

Edit Active Route (Edit Route)—allows you to review and modify the Active Route from either a list of the Route points or graphically on a map window.

Setup—allows you to select what waypoints and tracks are shown on the Highway page. Use the **ROCKER** and **ENTER** key to select or clear options. The following options are available:

- **Active Route Waypoints**—displays all active route waypoints.
- **User Waypoints**—displays only nearby waypoints.
- **Track Log**—displays the current active Track Log.
- **Saved Tracks**—displays any saved Track Logs.



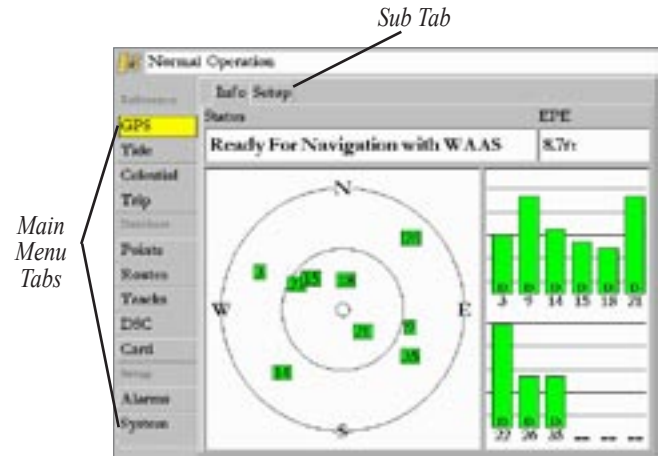
Highway Page Setup

MAIN MENU

The GPSMAP 3005C'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 MFD's system, and is accessed through the **MENU** key. As you add optional hardware to the MFD or Garmin Marine Network, additional Main Menu tabs or sub tabs appear automatically. For specific instructions on additional adjustments and features, refer to the specific section (or manual) for that hardware device.

To select a Menu tab from the Main Menu page:

1. Press and hold **ADJ/MENU** for two seconds to display the Main Menu page.
2. Press Up or Down on the **ROCKER** to highlight the tab you want to view. (The cursor wraps around when you reach the top or bottom of the list.) The information for the highlighted tab automatically appears to the right. If you want to highlight any of the sub tabs, press Left or Right on the **ROCKER**, and then press Up or Down to select individual fields.
3. Press **ADJ/MENU** for additional sub tab options, or press **ENTER** to make changes to the highlighted item. Press Left on the **ROCKER** to return to the Menu tab list. Press **QUIT** to close the Main Menu page and return to the previous main page.

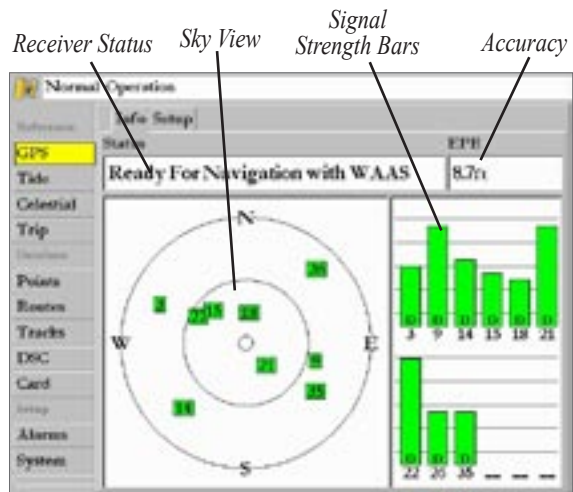


GPS Tab

The GPS tab provides a visual reference of satellite acquisition, receiver status, and accuracy. The status information gives you an idea of what the 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 appears for each satellite in view. The progress of satellite acquisition is shown in three stages:

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

The Status field indicates “Ready For Navigation” when the GPSMAP 3005C has collected the necessary data from at least three satellites. The unit then updates the location, date, and time.



Main Menu—GPS Tab

The sky view shows a birds-eye view of the location of each satellite relative to the receiver’s last known location. The outer circle represents the horizon (north up), the inner circle 45° above the horizon, and the center point a location 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 3005C is capable of receiving WAAS (Wide Area Augmentation System) satellite signals. 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 and sea-based users can 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 or mountains.

WAAS satellites are numbered 33 or higher when viewing the sky view on your GPSMAP 3005C. Initial reception of the WAAS signal may take up to 15-20 minutes, then 1-2 minutes afterwards. When WAAS differential correction has been received for GPS satellites (numbers 32 or below), a D appears in the signal bar of the sky view and “Ready For Navigation with WAAS” appears in the Status field. To learn more about the WAAS system, its satellite locations and current state of development, visit the FAA web site (<http://gps.faa.gov>). Because WAAS requires CPU resources of

the GPSMAP 3005C to search for and track the satellites, you can disable the WAAS feature to improve unit performance if WAAS reception is not available in your area. See the “Appendix” for more information.

To disable/enable WAAS capability:

1. On the **GPS** tab, highlight the **Setup** sub tab.
2. Use the **ROCKER** to highlight the **WAAS** field, and press **ENTER**.
3. Highlight **On** or **Off**, and press **ENTER**.

Receiver Status and Accuracy

Receiver status is indicated in the **Status** field on the **Info** sub tab. Current accuracy is indicated by the EPE (Estimated Position Error) field. Accuracy uses many factors, such as the number of received GPS satellites, signal strength, and satellite orientation, to calculate location accuracy in feet or meters. The **Status** field shows one of the following conditions:

- **Searching for Satellites**—the receiver is looking for any satellites and collecting data from satellites visible at its last known or initialized location, but has not collected enough data to calculate a fix. This process can take up to five minutes.

- **Ready For Navigation**—at least three satellites with good geometry have been acquired and your location is now being calculated in latitude and longitude, or at least four satellites have been acquired and your elevation is being calculated. Ready For Navigation with WAAS appears when you are receiving WAAS satellite corrections in 2D or 3D and a D appears on the strength bar of satellites being corrected.

The **Setup** sub tab on the **GPS** tab provides access to functions and features relating to the GPS tab.

- **Skyview Orientation**—allows you to select a sky view display, either **North Up** or **Track Up**, for the GPS Info display only.
- **Source**—set to Garmin when using a Garmin sensor (GPS 17) or to NMEA when using any other GPS NMEA source.
- **WAAS**—toggles the WAAS capability of the Garmin receiver on or off.



Setup Sub Tab

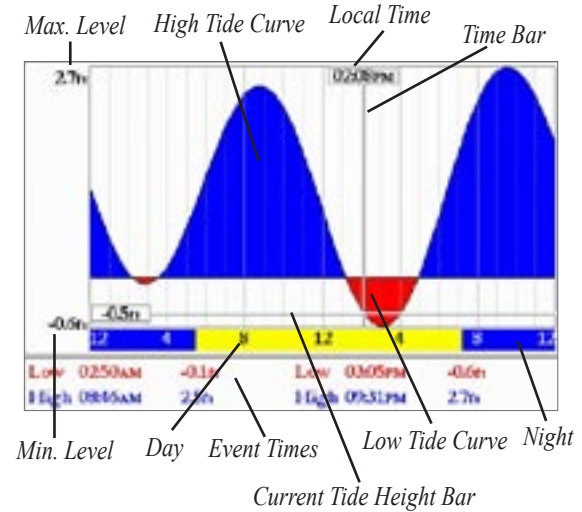
The following on-screen buttons appear only when the unit is not receiving satellites and the source is not set to Garmin:

- **AutoLocate**—allows the receiver to find your location automatically. This process can take up to five minutes.
- **Set Initial Position**—allows you to initialize the receiver graphically or manually from the Map page to initially help the receiver acquire satellites more quickly. See page 5 for instructions on initializing the GPS receiver.

Tide Tab

The **Tide** tab shows a graphical chart that displays tide station information in a 24-hour span starting at midnight. You can choose from different dates and more than 3,000 tide stations around the U.S.A. coastline, Alaska, Hawaii, western Canada, several of the Caribbean islands, and others with some BlueChart data.

The top of the page displays the tide station being referenced, the distance and bearing from your current location, and the date. The bottom of the chart shows a 24-hour block of local time for your location. Daylight (yellow bar) and nighttime (blue bar) at the station appear across the time scale, with the time progressing from left to right (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 local time at the top) indicates the tide height corresponding to the time shown in the the local time box.



The tide curve shows as a shaded area, where higher tides are taller (blue) and lower tides are shorter (red). The solid, horizontal line indicates the tide height. The figure to the left of the line shows the current tide level. The Mean Lower Low Water (MLLW) appears as a solid, horizontal line near the bottom of the chart (this line appears only if the tide height ranges to zero or below). The numbers on the top and bottom of the left side indicate the maximum/minimum levels. The four 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. When comparing with other tide tables, be sure the depth unit value is the same for both sources.

To select the nearest tide station from your current location:

1. On the **Tide** tab, highlight the **For** field and press **ENTER**.
2. Highlight **Current Position**, and press **ENTER**.
3. Highlight the tide station on the list, and press **ENTER**. As you move the pointer over each station, it highlights on the Map window to show its location. The distance and bearing from your present location to the highlighted tide station appears at the bottom of the list.

If you are not within this range, the message “None Found” appears. Use the **Map Position** option to select a location closer to a tide station.

To select a tide station from the map:

1. On the **Tide** tab, highlight the **For** field and press **ENTER**.
Or
Press **FIND** on any page, highlight **Tidal Information**, and press **ENTER**.
2. Highlight **Map Position**, and press **ENTER**.
3. Select a location on the map, and press **ENTER**. A list showing the nearest tide stations appears.

4. Highlight a tide station, and press **ENTER**. If the “None Found” message appears, repeat steps 1-3 until you find a tide station.



Selecting a tide station from a Map location

You can also change the date to see tide charts for other days, or move the time bar in approximately five minute increments to display tide heights at various times.

To change the date for the tide chart:

1. Using the **ROCKER**, highlight the **On** field and press **ENTER**.
2. Enter a date and press **ENTER**.

To use the current date:

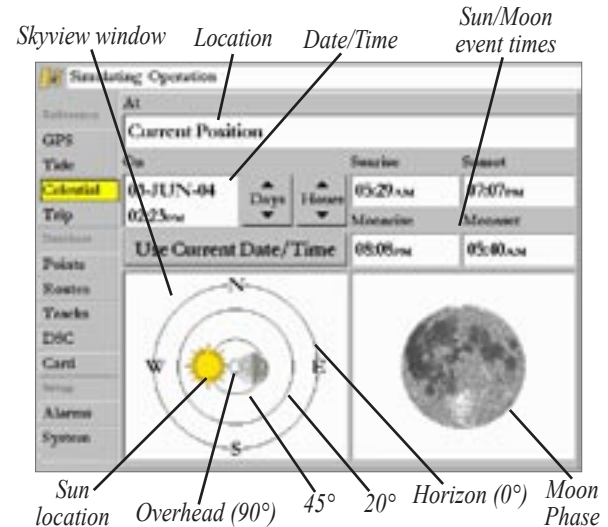
Highlight the **Use Current Date** button and press **ENTER**.

To see tide heights at various times on the tide chart:

1. Highlight the tide chart.
2. Press Left or Right on the **ROCKER** to change the time and day. The day changes as you move past the edge of the tide chart.

Celestial Tab

The **Celestial** tab displays celestial data for sun and moon rise and set, moon phase, and approximate sky view location of the sun and moon. The moon phase displays the current visible portion of the moon as a light color. You can display this data for your current location, a location from the map, or a Find item location. Also, you can select a different date and time, or use the current date and time. The timetables shown are based on your current time zone.



To choose another location:

1. On the **Celestial** tab, highlight the **At** field, and press **ENTER**. The Find Celestial Information page appears.
2. Make a selection and press **ENTER** until the information for that location is displayed on the **Celestial** tab. For more information on using the find feature, see page 13.

To change the time or date:

1. On the **Celestial** tab, use the **ROCKER** to highlight the **Days** or **Hours** button, and press **ENTER**. Press Up or Down on the **ROCKER** to change the Days or Hours. Press **QUIT** to exit.
Or
Highlight the **On** field, and press **ENTER**.
2. Enter a new date or time, and press **ENTER**.
3. To return to the current date and time, highlight the **Use Current Date/Time** button, and press **ENTER**.

Trip Tab

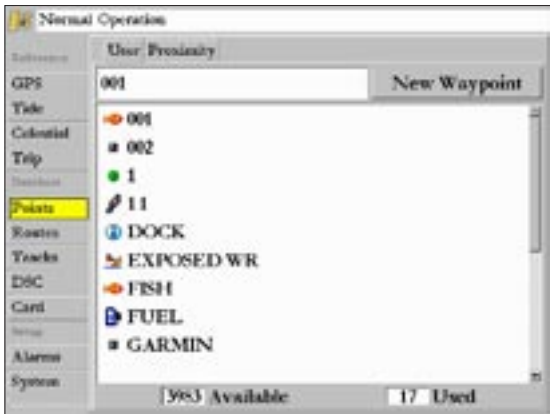
The **Trip** tab displays data for Trip Odometer, Moving Average speed, Total Average speed, Maximum Speed, Stopped Time, Moving Time, Total Time, and Odometer. To clear the data, highlight the **Clear Trip**, **Clear Odometer**, **Clear Max Speed**, or **Clear All** button, and press **ENTER**.

Simulating Operation		
Information	Trip Odometer	Stopped Time
GPS	0.8nm	15:46:39
Tide	Moving Average	Moving Time
Celestial	14.6kt	00:03:27
Trip	Total Average	Total Time
Points	0.1kt	15:50:06
Routes	Maximum Speed	Odometer
Tracks	259kt	0.8nm
DSC	Clear Trip	Clear Max Speed
Card	Clear Odometer	Clear All
Setup		
Alarms		
System		

Main Menu—Trip Tab

Points Tab

The **Points** tab contains two sub tabs, **User** and **Proximity**, which allow you to manage a large number of waypoints quickly and efficiently. The sub tabs also provide a continuously updated proximity waypoint alarm function that can be used to define items such as submerged hazards or shallow waters. For more information about user waypoint lists, see page 23.



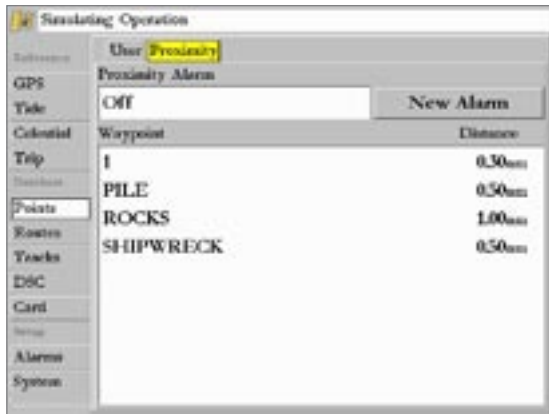
User Sub Tab

The **User** sub tab on the **Points** tab displays a master list of all waypoints currently stored in memory. From the User list, you can review, edit, rename, or delete individual waypoints, or delete all

user waypoints. The total number of stored and available waypoints appears at the bottom of the User sub tab, with the stored waypoints arranged in numerical/alphabetical order. For more information about user waypoint lists, see page 23.

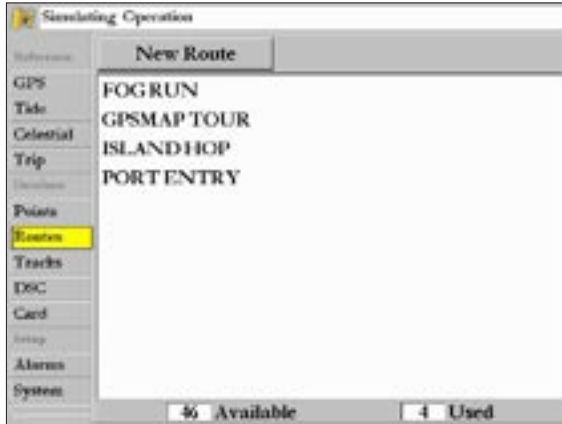
Proximity Sub Tab

Use the **Proximity** sub tab on the **Points** tab to define an alarm circle around a stored waypoint location. The alarm circle can help you avoid reefs, rocks, or restricted waters. You can add proximity alarms to up to 10 waypoints, with a maximum alarm radius of 99.99 nautical or statute miles or kilometers. For more information on proximity waypoints, See page 26.



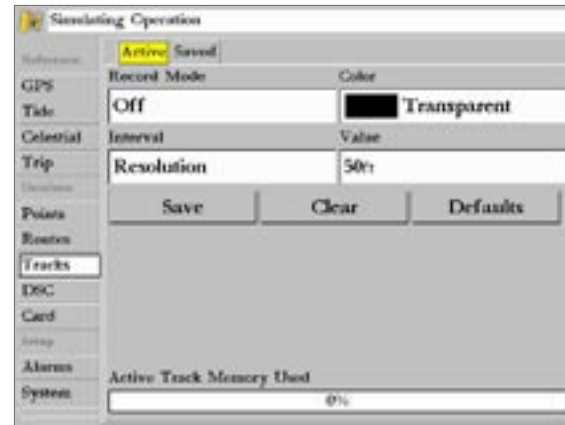
Routes Tab

The **Routes** tab contains a list of available routes. See the “Routes” section beginning on page 34 for more information about creating routes.



Tracks Tab

The **Tracks** tab allows you to specify whether or not to record a track log, define how it is recorded, or save track log data for future use. The Tracks tab also provides an indicator of the memory used for the active track log and options to clear the track memory. The Tracks tab is divided into two sub tabs: **Active** and **Saved**.



Active Sub Tab

The **Active** sub tab is for the active log (the log currently being recorded). The active log stores up to approximately 10,000 track log points, based on the criteria specified in the Track settings. It displays the amount of track memory used and current settings. The following settings are available:

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

- **Off**—No track log is recorded. If you select **Off**, you cannot use the TracBack feature.
- **Fill**—a track log is recorded until the track memory is full.
- **Wrap**—a track log is continuously recorded, wrapping through the available memory (replacing the oldest track data with new data).

Color—allows you choose a color used to display the active track log on the Map and Highway pages.

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 based on a user-defined variance from your course over ground or changes in water depth/temp (if equipped). The resolution option is the default setting and is recommended for the most efficient use of memory and TracBack performance. The distance value (entered in the value field) is the maximum error allowed from the true course before recording a track point.

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

The following on-screen buttons are available:

Save—saves the current active track log.

Clear—clears the active track log currently stored in memory.

Defaults—restores Track tab settings to factory defaults.

Saved Sub Tab

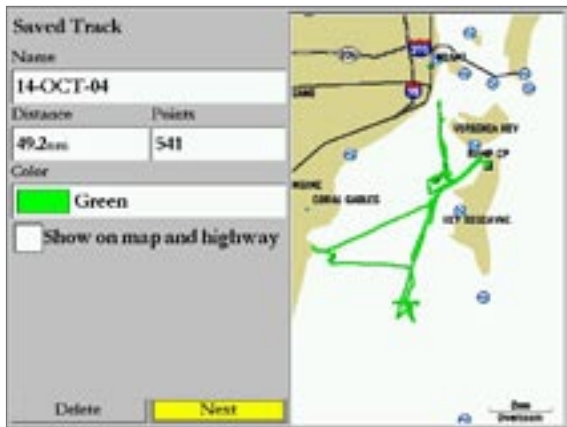
The **Saved** sub-tab displays a list of all saved track logs and allows TracBack activation and a map display of saved logs. Up to 15 track logs can be saved in memory with up to 700 track log points in each saved log.

On the **Saved** sub tab, the following options are available by highlighting a track and pressing **ADJ/MENU**:

- **Delete**—deletes highlighted saved track log from memory.
- **Delete All**—deletes all saved track logs from memory.

To review and edit a track:

1. On the **Saved** sub tab, highlight a track, and press **ENTER** to display the Saved Tracks page.



2. To change the name of the saved track, highlight the **Name** field, and press **ENTER**. Make any changes, and press **ENTER** again.

3. To specify a color for the saved track line, highlight the **Color** field and press **ENTER**, choose a color, and press **ENTER** again.
4. To display the track on the Map and Highway pages, highlight the **Show on map and highway** check box, and press **ENTER**.
5. To exit, press **QUIT** or highlight the **Next** button, and press **ENTER**.

You can also navigate a TracBack from any of the saved tracks on this tab.

To activate a Follow Track from the Saved sub tab:

1. Using the **ROCKER**, highlight the track you want to follow and press **NAV**. The **Follow <track name>** automatically appears highlighted.
2. Press **ENTER**.
3. If you want to invert the Follow Track (navigate it in the reverse direction), press **NAV**, and select **Invert Route**.

DSC (Digital Selective Calling) Tab

Use the **DSC** tab to control and set up DSC (Digital Selective Calling) features on the GPSMAP 3005C unit. DSC uses marine VHF radio and GPS technologies to transmit and receive location information. DSC is used by mariners for two major operations—distress calls and position reporting.

For more information about DSC and Maritime Mobile Service Identity (MMSI) numbers, see pages [108-109](#) in the “Appendix.”



When the Garmin GPSMAP 3005C is connected to a VHF radio with DSC support, the GPS unit displays a call list, log, and a directory available to store incoming information received from another user’s DSC-capable VHF/GPS combination. Basic wiring is required for the Garmin unit and VHF radio to send and receive NMEA data from each other. See the *GPSMAP 3005C & GPS 17 Installation Instructions* for more information.

Understanding DSC Distress Calls

With a Garmin DSC capable chartplotter properly connected to a VHF radio with DSC output, you can receive any DSC distress call within range. An alert message appears and an alarm sounds (if enabled) when a distress call is received. The alarm sounds only for a distress call; position reports do not sound the alarm. Distress calls are broadcasted to all DSC users in radio range and appear with a blue and white checkered icon on the DSC tab’s **Call List** and **Log** sub tabs.

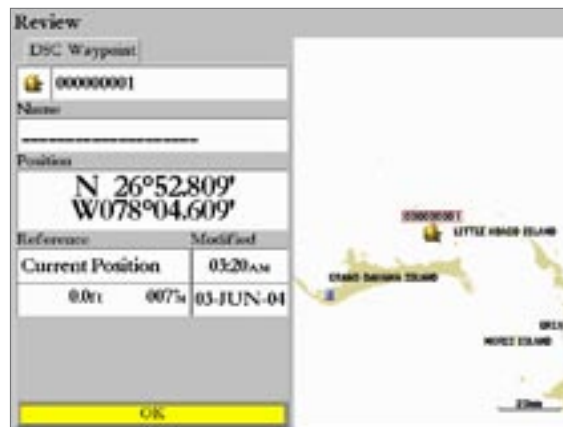


Distress Call Message

You can enter a caller's name, if it is known. The caller's name replaces the MMSI number as a reference when entered.

Understanding Position Reports

The position report operates similarly to the distress call. This type of contact is like a phone call; no emergency alarms are set off and the call is specific to the receiver. Position Reports are not broadcasted to all DSC users and appear with a gold boat icon.



Position Report Message

DSC Call List Sub Tab

The Call List sub tab displays the 100 most recent calls, even if the unit is left unattended. You can select any entry from the Call List to show an Entry Review.

DSC Log Sub Tab

When DSC calls are received, they are automatically stored in the log, with the latest call at the top. The unit can store up to 100 calls; after 100 calls are received, the oldest is removed when a new call is received.

The Call List and Log sub tabs both display the call Type, Date/Time, Position, and MMSI/Name. Pressing **ADJ/MENU** from this list allows you to Sort By (Call) Type, Sort By Time, Sort By Name, Delete (only after highlighting a particular call), and Delete All.

To review a call or log entry:

1. From the Main Menu—DSC tab highlight the **Call List** or **Log** sub tab.
2. Press Up or Down on the **ROCKER** until the call you want to review is highlighted.
3. Press **ENTER**.

DSC Item Review

The DSC Item Review page operates similarly to the Distress page and Position Report page. This page has the additional option to delete the displayed call. On the DSC Entry Review page, you can use the **Delete** button to delete the entry, or use the **Create Wpt** button to create a waypoint.



DSC Item Review

DSC Directory

The DSC Directory acts like a phone book and can save up to 100 contacts. The directory lists all contacts by name and MMSI number. Pressing **ADJ** from this page allows you to delete a highlighted entry or delete all entries.

To add a new directory item:

1. Highlight the **New Item** button and press **ENTER**. The Directory Item Review window allows you to enter information of a known contact.
2. Highlight the **MMSI, Name**, or **Comment** field, and press **ENTER**.
3. Press Up or Down on the **ROCKER** to enter information, and press **ENTER**.



4. Highlight **OK**, and press **ENTER** to save the entry.
Or
Highlight **Delete** and press **ENTER** to delete the entry.

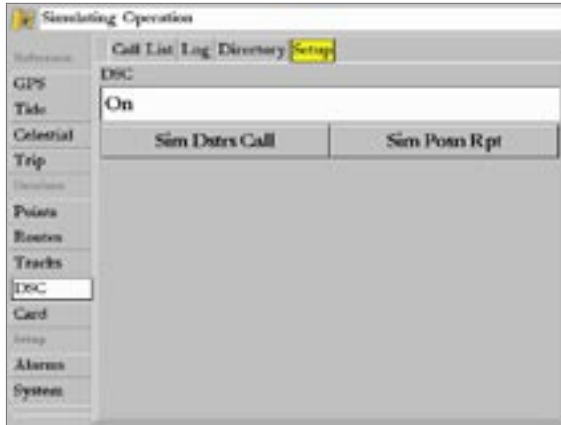
After creating a New Directory Item entry, the name created is attached to that particular MMSI number. If you return to the log, the new name is displayed under the corresponding MMSI number.

Another way to enter a name is from the Entry Review page or the DSC Distress Call or DSC Position Report pages. The Name field is only available in the GPS. Names cannot be sent like the MMSI numbers to other DSC users.

Setting up DSC

Use the DSC **Setup** sub tab to turn DSC on and off. If you have more than one chartplotter and you only want DSC to display on one chartplotter, turn off DSC on all but one unit.

You can use the DSC **Setup** sub tab to simulate distress calls or position reports on this page while the unit is in Simulator Mode. See page 6 for information on Simulator Mode. Choose either the **Sim Dstrs Call** or **Sim Posn Rpt** buttons to simulate a Distress Call or a Position Report. This is helpful practice before connecting to the real system. The Distress Call simulator also helps to determine whether alarms are working properly.



DSC Setup (Simulator Mode shown)

Using the NAV Key

The receiver of a distress call or position report can quickly navigate to the caller using the NAV key. When the call is logged, press NAV and select **Go To <MMSI number>** or **Go To <Name>**.

Card Tab

The Card tab contains options for transferring waypoints, routes, and tracks to and from a data card. When data is saved to a data card, it can be exchanged with other compatible units and Garmin's MapSource software program.



To transfer data to/from a data card:

1. Insert the data card. If there is already user data on the card, highlight **Manage User Card**, and press **ENTER**.
2. From the **Card** tab, select the check box next to each type of item you want to transfer.
3. Highlight **Save To Card**, and press **ENTER** to save the selected items to the data card.
4. If transferring data from the card to the GPSMAP 3005C, highlight **Merge From Card**, and press **ENTER** to combine the selected items with existing GPS data.

Or

Highlight **Replace From Card**, and press **ENTER** to overwrite all selected items on your GPS.

5. A Transfer Complete message appears after the data is transferred. Press **QUIT**.

Alarms Tab

Use the Alarms tab to define alarm settings. The Alarms tab is divided into three sub tabs: **System**, **Nav**, and **Sonar**.

Alarm messages appear in red across the status bar or changes the appearance of a data field if that field displays alarm-related data (for example, depth or voltage). Press **QUIT** to acknowledge an alarm message. The status bar and data field remain red while the alarm condition persists.



System Sub Tab

Use the System sub tab to set alarms for the system clock, batteries, and GPS accuracy.

System	Nav	Sonar
Clock	Off	12:00AM
Battery	Off	11.2v
GPS Accuracy	Off	328.1ft

Main Menu—Alarm Tab (System sub tab)

The following settings and options are available:

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 are using for your system. The unit must be on for the clock alarm to work.

Battery—sets an alarm to sound when the battery reaches a user-determined low voltage.

GPS Accuracy—sets an alarm to sound when the GPS location accuracy falls outside the user-determined value.

Nav Sub Tab

Use the Nav sub tab to set navigational alarms including anchor drag, arrival, and off course.

System	Nav	Sonar
Anchor Drag	Off	0.0ft
Arrival	Time	00:00:15
Off Course	Off	0.00nm

Main Menu—Alarm Tab (Nav sub tab)

The following settings and options are available:

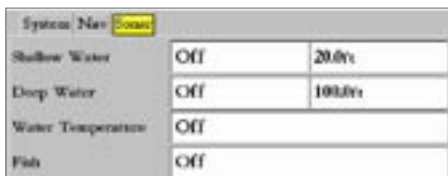
Anchor Drag—sets an alarm to sound when a specified drift distance is exceeded. Enter a value in the distance field and use the control field to turn the alarm on and off.

Arrival—sets an alarm to sound when a specified distance or time away from a destination waypoint is exceeded. 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 are off course by a specific distance. Enter a distance in the distance field and use the control field to turn the alarm on and off.

Sonar Sub Tab

Use the Sonar sub tab* to set sonar alarms including shallow or deep water, water temperature, and fish.*



System Nav		Sonar
Shallow Water	Off	20.0ft
Deep Water	Off	100.0ft
Water Temperature	Off	
Fish	Off	

Main Menu—Alarm Tab (Sonar sub tab)

The following settings and options are available:

Shallow Water/Deep Water—set alarms to sound when you enter an area of specified depth that is too shallow or too deep. You must be receiving sonar data for this function to work.

Water Temperature—sets an alarm to sound when the transducer reports a temperature either above, below, inside or outside the specified values.

Fish—sets an alarm to sound when the unit detects a fish of the specified size symbol(s).

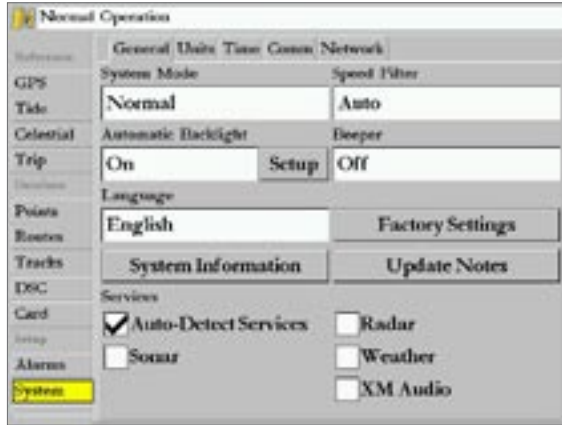
*You must be receiving NMEA Sonar data or using a Garmin Sonar Module for the Sonar alarms to function. The Fish Alarm only functions when using a Garmin Sonar Module.

To set an alarm:

1. Use the **ROCKER** to highlight the **System, Nav, or Sonar** sub tab.
2. Highlight the field next to the alarm name you want set, and press **ENTER**.
3. Change the mode to the setting you want, and press **ENTER**.
4. Repeat steps 1-3 to set additional alarms, and press **ENTER** when finished.

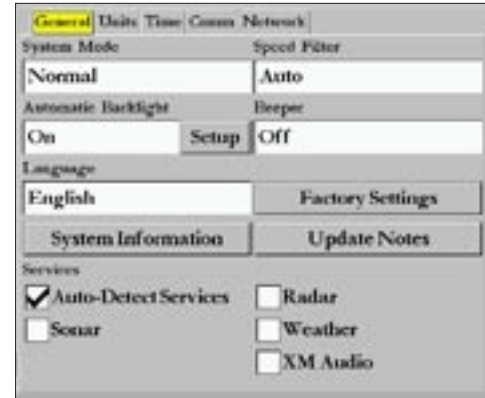
System Tab

The System tab consists of five sub tabs—General, Units, Time, Comm, and Network.



General Sub Tab

Use the General sub tab to control system settings for beeper, speed filter, languages, system mode, simulator controls, restore factory settings, and to display the software version.



The following settings and options are available:

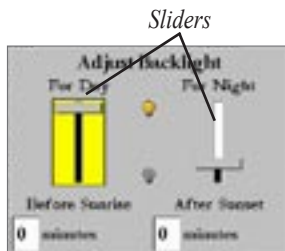
System Mode—select from **Normal** (Normal Navigation) or **Simulator** (for practice only). For more information about Simulator Mode, see “Simulator Mode” on page 6.

Speed Filter—averages speed readings. Select from **Off**, **Auto** (automatically controls filtering), or **On** (allows you to enter a value from 1 to 255 seconds).

Automatic Backlight—automatically adjusts the display brightness to a specified level at sunrise and sunset. Offset minutes for before sunrise and after sunset can also be specified.

To adjust the Automatic Backlight settings:

1. Highlight **Automatic Backlight**, and press **ENTER**.
2. Using the **ROCKER**, highlight **On**, and press **ENTER**.
3. Highlight the **Setup** button, and press **ENTER**.
4. To adjust the backlight levels **For Day** and **For Night**, highlight the corresponding slider, and press **ENTER**.



5. Press Up or Down on the **ROCKER** to increase or decrease the backlight level, and press **ENTER**.
6. To adjust the offset minutes, select the **minutes** field, and press **ENTER**.
7. Enter the offset for Before Sunrise or After Sunset. If zero, the unit automatically changes to the specified level at sunrise/sunset. Press **QUIT** to exit.

Beeper—controls the audible beep. Select from **Off**, **Alarms Only** (sounds for alarms/messages), or **Key and Alarm** (sounds for key presses and alarms/messages).

Language—select from various languages for the unit's on-screen display.

The following on-screen buttons are available:

Factory Settings—restores all settings to Garmin's original setup values for the all devices on the network.

System Information—displays the unit's software, basemap version, and electronic serial number.

Update Notes—displays software notes for the current software version.

Services—after a new device is detected on the network, clearing the **Auto-Detect Services** check box speeds up the power-on sequence. If the **Auto-Detect Services** check box is not selected and new hardware is added, you must select the corresponding service check box to enable the new hardware device.

Units Sub Tab

Use the **Units** sub tab to define settings for Position Format, Depth, Map Datum, Temperature, Distance, Speed, and Elevation, Pressure, and Heading.



WARNING: The **Units** tab settings affect how navigation information appears on the GPSMAP 3005C. When in doubt, seek assistance. If you are using a map or chart in conjunction with your GPS, make sure the settings on the **Units** tab match that of the map or chart. This information should be displayed somewhere on the map or chart. If not, contact the map or chart maker to determine what position format, datum, heading, and units of measure are used for the map or chart.

General	Units	Time	Conn.	Network
Position Format		Depth		
hddd°mm.mmm'		Feet (ft)		
Map Datum		Temperature		
WGS 84		Fahrenheit (°F)		
Distance, Speed, and Elevation		Pressure		
Nautical (nm, kt, ft)		Millibars (mb)		
Heading				
Auto Mag Var		005°W		

The following settings are available:

Position Format—used to change the coordinate system in which a given location reading appears. Only change the position format if you are using a map or chart that specifies a different position format or you want 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').

Depth—select the units of measure for depth in Feet (ft), Fathoms (fa) or Meters (m). You must be receiving NMEA Sonar depth data or using a Garmin Sonar Module for the depth to appear.

Map Datum—manually select the datum reference used to determine a given location. The default setting is **WGS 84**. The unit automatically selects the best datum depending on your chosen position format. Datums are used to describe geographic locations for surveying, mapping, and navigation and are not actual maps built in the unit. Although more than 100 datums are available, you should change the datum only 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.

Temperature—select the units of measure for temperature in Fahrenheit (°F) or Celsius (°C). You must be receiving NMEA Sonar temperature data or using a Garmin Sonar Module for the Temperature to appear.

Distance, Speed, and Elevation—select the units of measure for distance, speed and elevation readouts in Nautical (nm, kt, ft), Nautical (nm, kt, m), Statute (mi, mh, ft), or Metric (km, kh, m) terms.

Pressure—select the units of measure you want to use for weather readouts in Inches Mercury (in), Millibars (mb), or Hectopascals (hPa). You must be using a Garmin Weather product for this data to appear.

Heading—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 that are automatically determined from your present location. True provides headings based on a true north reference.

Grid provides headings based on a grid north reference. User Mag Var allows you to specify the magnetic variation at your present location and provides magnetic north heading references based on the variation you enter.



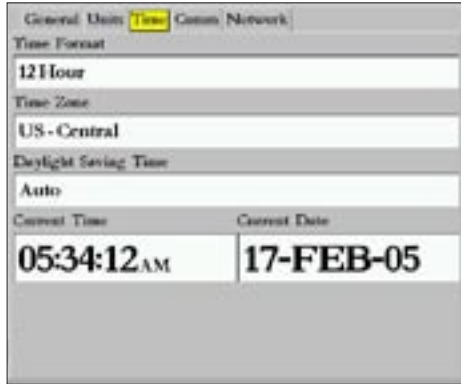
WARNING: *If **User Mag Var** is selected, you must periodically update the magnetic variation as your location changes. When using this setting, the GPSMAP 3005C unit does not automatically calculate and update the magnetic variation at your present location. Failure to update this setting can result in substantial differences between the information displayed on your unit and external references, such as a magnetic compass.*

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**.
2. Enter the magnetic variation at your current location, and press **ENTER**.

Time Sub Tab

Use the Time sub tab to adjust the time format, enter a time zone, and adjust for daylight saving time to show correct local time.



The following options are available:

Time Format—select 12 Hour, 24 Hour (military), or UTC (also called Greenwich Time) time format.

Time Zone—select your time zone to show correct local time or enter a UTC Offset (how many hours you are ahead or behind the time line).

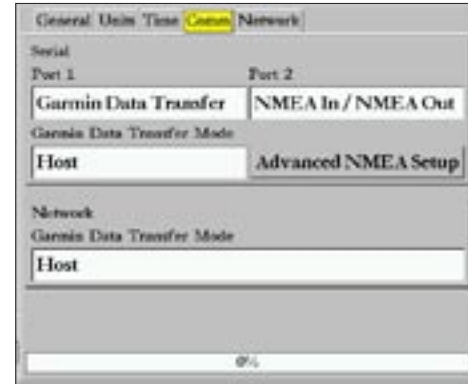
Daylight Saving Time—select Auto, On, or Off to adjust for daylight saving time.

Comm (Communications) Sub Tab

The **Comm** sub tab controls the input/output format used when connecting your GPSMAP 3005C to external NMEA devices, or a PC. The unit supports two input/output ports.



NOTE: See the *GPSMAP 3005C & GPS17 Installation Instructions* for more information on wiring and NMEA information.



Port 1

Garmin Data Transfer—the proprietary format used to upload or download MapSource data, exchange waypoint, route, track, and proximity data with a computer or another Garmin unit. When you

select **Garmin Data Transfer**, you can choose from nine Transfer Modes: Host, Request Proximity, Request Routes, Request Tracks, Request Waypoints, Send Proximity, Send Routes, Send Tracks, and Send Waypoints.

Garmin Remote Sonar—select this option for the port to which you have a Garmin Sonar Module connected.

NMEA In/NMEA Out—supports the input/output of standard NMEA 0183 data, DSC, and sonar NMEA input support for the DPT, MTW, and VHW sentences. You can also adjust the NMEA output.

None—provides no interfacing capabilities.

Port 2

Garmin Remote Sonar—select this option for the port to which you have a Garmin Sonar Module connected.

NMEA In/NMEA Out—supports the input or output of standard NMEA 0183 data, DSC, and sonar NMEA input support for the DPT, MTW, and VHW sentences. You can also adjust the NMEA output.

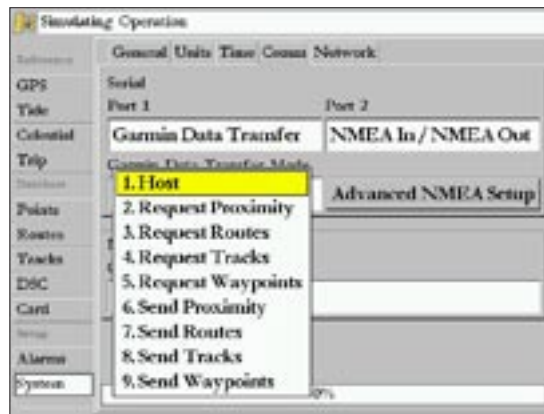
None—provides no interfacing capabilities.

You can also adjust the NMEA output to enable or disable certain sentences and adjust the number of Lat/Lon output precision digits.

You must have one of the ports set to **NMEA In/NMEA Out** to use this option. Settings affect both Port 1 and Port 2 NMEA outputs.

NMEA Interface

If you are going to use the GPSMAP 3005C with a NMEA device (such as a radio or autopilot), the unit needs to be set to input/output NMEA data. See the *GPSMAP 3005C & GPS 17 Installation Instructions* for information on wiring and NMEA data .



To activate the NMEA data:

1. Highlight the **Port 1** or **Port 2** field, and press **ENTER**.
2. Highlight **NMEA In/NMEA Out**, and press **ENTER**.

When transferring data between two Garmin units, always set one to **Host** and use the other unit to send or request the data.

Advanced NMEA Output Setup

The GPSMAP 3005C NMEA data transmission can be customized to change the precision of the Lat/Lon minutes, set up the waypoint IDs, and keep the output rate at two seconds. If the unit is set up to output all of the available NMEA sentences, the output rate may exceed two seconds.

Use the Advanced NMEA Setup page to turn the GPS status (GSA, GSV), Waypoint/Route (WPL, RTE), and the Garmin Proprietary sentences on or off. Check any other equipment's owners manual to see what sentences are required to be enabled for functionality.

Lat/Lon Minutes Precision allows you to adjust the number of digits to the right of the decimal point for transmission of NMEA Output, either 2, 3, or 4 digits. Use the **Waypoint ID** setting to choose to output the waypoint identifiers as names or numbers.

Advanced NMEA Setup Page

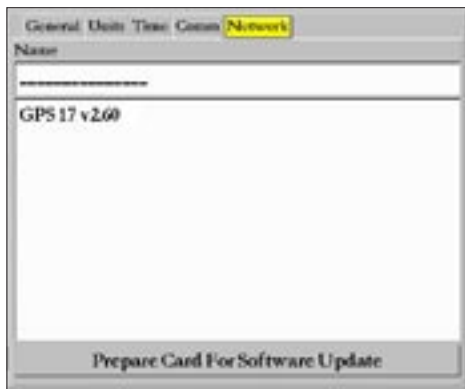
To set up the Advanced NMEA page:

1. Highlight the **Advanced NMEA Setup** button, and press **ENTER** to display the Advanced NMEA Setup page.
2. To change, enable, or disable NMEA Output Sentences, highlight the sentence, and press **ENTER** to select or clear the check box. Only selected sentences will output.

Network Sub Tab

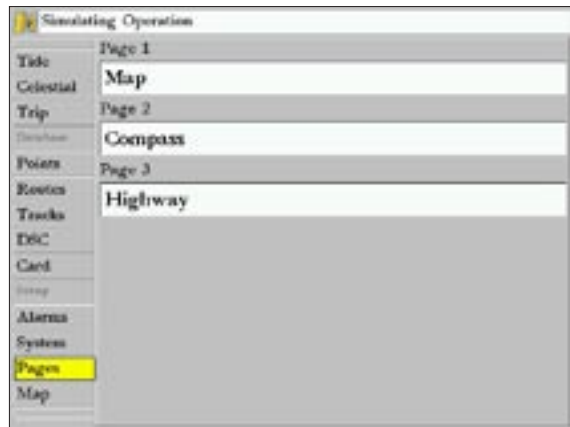
The Network sub tab displays devices currently connected to the MFD and Garmin Marine Network.

Prepare Card For Software Update—use to update software for devices on the network. When selected, information about your network installation is collected and saved to a data card. Use the data card with Marine Updater on your PC to download software updates for your system. Using Marine Updater, you can put all of the software updates on a data card. When you put the data card into the unit it will update the software for all devices on the network. Check the Garmin Web site (www.garmin.com) for future updates and announcements.



Pages Tab

Use the **Pages** tab to change the page sequence.

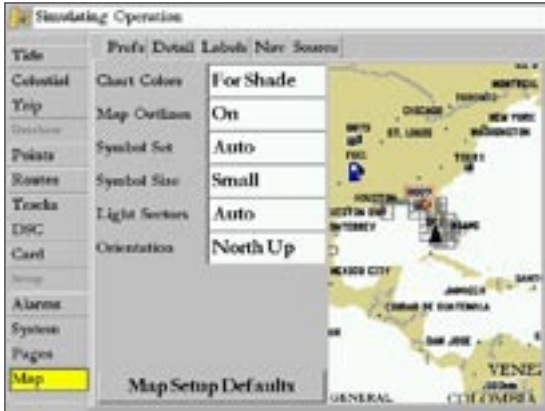


To change the page sequence:

1. Use the **ROCKER** to highlight the **Page 1** field, and press **ENTER**.
2. Highlight the page you want to appear as the first Main page, and press **ENTER**.
3. Repeat steps 1-2 to change the page sequence for additional pages.

Map Tab

Use the Map tab to configure the map display to your preferences, including map detail, map orientation, and automatic zoom. Changes made to the Map tab's sub tabs affect all maps.



To change a Map Setup feature:

1. On a Map function window, press the **Map Setup** Soft Key, or press and hold **ADJ/MENU** for two seconds to display the Main Menu page. The **Map** tab is highlighted.
2. Press Left or Right on the **ROCKER** to highlight a sub tab; press Up or Down on the **ROCKER** to highlight the setting you want to change, and press **ENTER**.

3. Press Up or Down on the **ROCKER** to highlight to the setting you want, and press **ENTER**. To exit, press **QUIT**.

The following are descriptions of the Map tab's five sub tabs.

Prefs Sub Tab

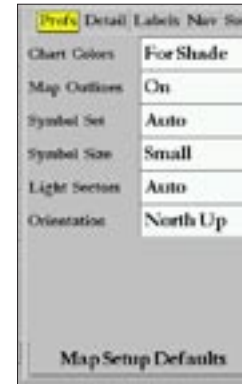


Chart Colors—selections are **For Shade** or **For Sun**. For Shade is designed to match the color of physical marine charts as closely as possible. Use this setting when in shaded environments. For Sun displays more vibrant colors for use in sunny environments. BlueChart data can be used with either mode.

Map Outlines—turns the coverage boxes for BlueChart/MapSource data **On** or **Off**.

Symbol Set—controls the navaid symbol set:

- **Auto**—BlueChart maps are drawn using symbols similar to the NOAA/NIMA standard. Non-BlueChart maps are drawn using traditional Garmin symbols.
- **GARMIN**—all maps are drawn using traditional Garmin symbols.
- **NOAA**—all maps are drawn using a symbol set similar to NOAA/NIMA.
- **International**—all maps are drawn using a symbol set similar to the IALA symbol set.

Symbol Size—controls the screen size of the navaid symbols. Options are Small, Medium, and Large.

Light Sectors—controls the drawing line sectors on the map. Select **Off**, **Auto**, or **On**.

Orientation—sets the orientation of the map display:

- **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. Set to All Ranges for constant Track Up. The numeric value is the map range at which the unit will switch to North Up when zooming out.

- **Course Up**—fixes the map so the direction of navigation is always up and turns the course line vertical on the screen.

Map Setup Defaults—restores map settings to factory defaults for all tabs. Highlight **Map Setup Defaults**, and press **ENTER** to restore original settings.

Detail Sub Tab



Chart—controls how much map detail you see and which charts the unit chooses to use for a particular zoom range. Select **Most**, **More**, **Normal**, **Less**, or **Least**.

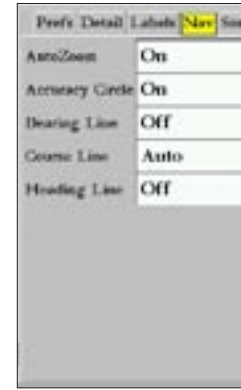
Waypoints, Active Route, Tide Stations, Services, Spot Soundings, Lat/Lon Grid—sets the maximum scale at which the feature should appear on-screen. Select **Off**, **All Ranges**, **Auto**, or **<30 ft to <800 nm**. Some types of data only show up to certain zoom scales.

Labels Sub Tab



Chart, Waypoints, Active Route, Tide Stations, Services, Spot Soundings, Lat/Lon Grid—controls the screen size of the text that displays for a given map item. Select **None**, **Small**, **Medium**, or **Large**.

Nav Sub Tab



AutoZoom—toggles the auto zoom on or off. When **On**, the map automatically adjusts the map to a lower range as you approach your destination point.

Accuracy Circle—toggles the circle on or off. The circle represents the approximate accuracy of the GPS position based on EPE (Estimated Position Error) and map data quality. Your location is within the circle.

Bearing Line—sets the maximum scale at which the feature should appear on the screen and toggles the red/yellow line that continually points to the current navigation point. Select **Off**, **All Ranges**, **Auto**, or **<30 ft to <800 nm**.

Course Line—sets the maximum zoom scale at which the course line appears on-screen. Select **Auto**, **Off**, or **<120 ft to <800 nm**.

Heading Line—draws an extension from the end of the boat icon in the direction of travel. For **Distance**, enter the numeric distance value to which you want the line to extend. For **Time**, enter the numeric time value you want the line to extend. The Time line length automatically adjusts as your speed changes.

Source Sub Tab



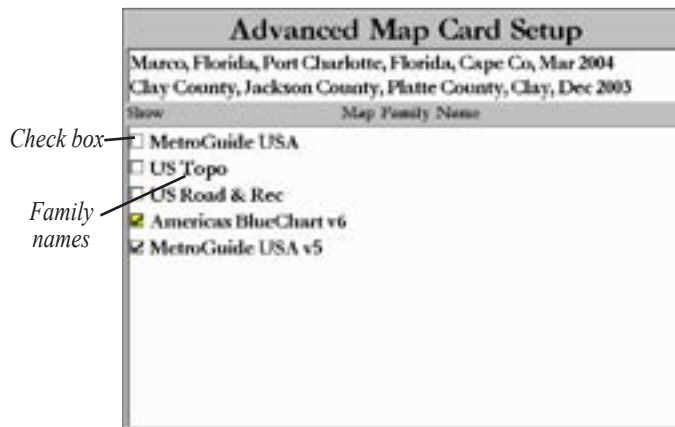
Basemap—turns the built-in base map on or off.

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

Advanced Setup—shows a list of the optional BlueChart/MapSource data loaded on the data card. Each map family (or type) is described by name and can be cleared if you do not want to display the data on the Map page.

To display the Advanced Map Card Setup:

1. Highlight the **Advanced Setup** button, and press **ENTER**.
2. Use the **ROCKER** to scroll through the list of map families.



3. Highlight the check box to the left of the name, and press **ENTER** to select or clear the map family. The map appears on the Map page when a check mark appears in the box adjacent to the map.

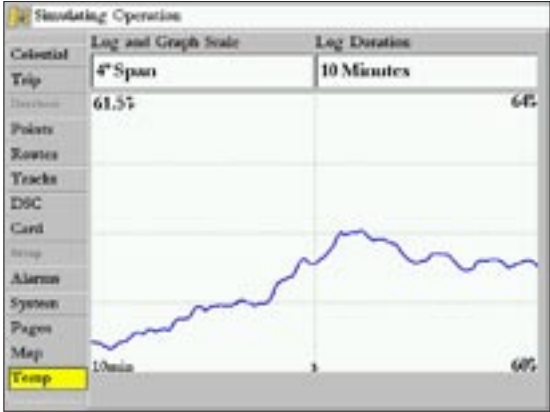
- 4. To display detailed information or notes for each area, or to turn individual maps in the family on or off, highlight the family name, and press **ENTER**.



- 5. To view the notes or chart information for that map area, highlight the map name, and press **ENTER**.
- 6. Highlight the **Notes** or **Chart Info** button, and press **ENTER**. To scroll through the notes, highlight the Notes fields, press **ENTER**, and use the **ROCKER** to scroll Up, Down, Left and Right.
- 7. Press **QUIT** to exit.

Temp (Temperature) Tab

The **Temp** tab displays the water temperature log (if equipped with a temperature sensing transducer or receiving NMEA Sonar temperature data). The chart reads from right to left, so that the most recent temperature measured appears on the far right side of the chart. The dotted grid lines within the chart indicate intervals in the temperature scale and the duration of time.



The following settings are available:

Temperature Scale—sets the temperature range (in degrees) for displaying the log. Select **Auto** to have the unit automatically determine the best range, or select a span of 2, 4, 6, 8, or 10 degrees. Use the **Reset** button in Auto mode to reset the automatic range.

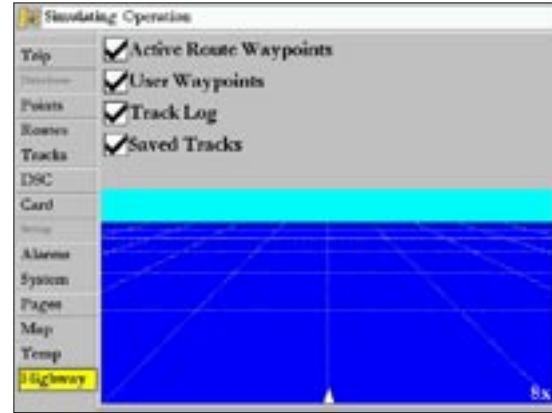
Time Duration—sets how fast or slow the temperature log scrolls; the shorter the time duration, the faster the temperature log scrolls. Select a duration from 1 minute to 2.5 hours.

Sonar Tab

The Sonar tab contains setup options for the Sonar page. The Sonar page is not active if you do not have the **Sonar** check box selected on the Main Menu—System tab. See the “Using Sonar” section on page 91 for more information on Sonar setup options.

Highway Tab

Use the **Highway** tab to select whether waypoints and tracks are shown on the Highway page. Use the **ROCKER** and **ENTER** key to select or clear options.



Active Route Waypoints—show all active route waypoints.

User Waypoints—show only nearby waypoints.

Track Log—show current active Track Log.

Saved Tracks—show any saved Track Logs.

For more information about the Highway page, see the “Highway Page” section on page 54.

USING SONAR

This section covers the additional sonar options for the GPSMAP 3005C when used in conjunction with a Garmin Sounder Module. Read the *Garmin Sounder Module Installation Instructions* to properly install the Garmin Sounder Module.



NOTE: You **must** have a Garmin Sounder Module installed and connected to your GPSMAP 3005C to use the sonar features.

When a Garmin Sounder Module is connected to the GPSMAP 3005C, and either the **Auto-Detect Services** or **Sonar** check box is selected on the **System** tab, the Sonar page is added to the page sequence. For more information on understanding sonar and the display, see page 100.

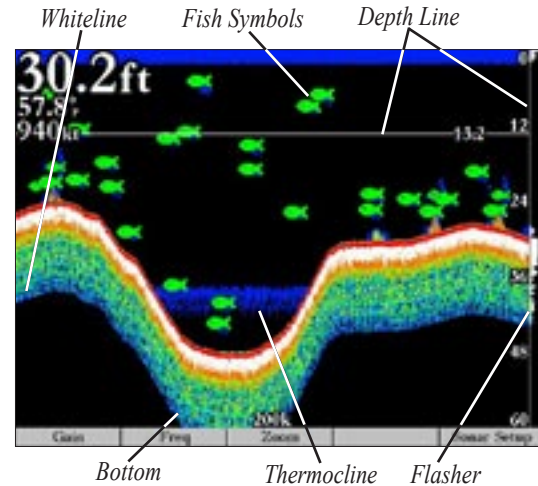
To view the Sonar page:

Press **PAGE** repeatedly until the Sonar page appears.

Sonar Page

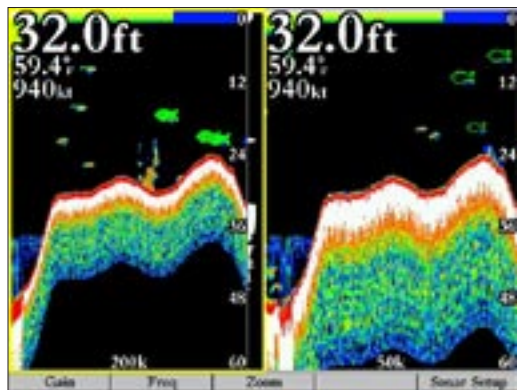
The Sonar page is where your GPSMAP 3005C becomes a powerful fishfinder/flasher. If a Garmin Sounder Module is not attached, the Sonar page appears when the GPSMAP 3005C is in Simulator Mode or if the Sonar check box is selected on the Main **System** tab.

The sonar function window contains a right-to-left moving sonar image of the water beneath your boat. Items appear as they pass under the transducer. The most recent data is displayed on the right side of the screen. The right side of the screen contains a scale that reflects the depth of the area being displayed. The top left corner displays the depth, water temperature, and speed through water (if equipped with a temperature or speed sensor).



The sonar returns show as red (strongest), then orange (strong), yellow (medium), green (weaker), and blue (weakest). The **Fish**

Symbols option allows you to view the actual sonar data, fish symbols, or a combination of both. Fish symbols appear as green. When the unit is set to **Dual Frequency**, the appearance of the fish symbols changes. Fish symbols from the center of the beam (200kHz) are solid (or narrow arches), but the returns from the edges of the beam (50kHz) are hollow (or wide arches).



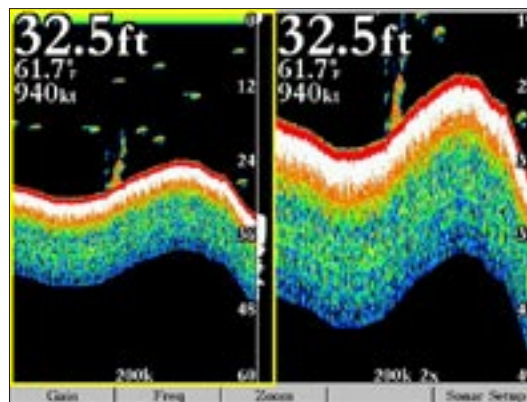
You can set the sonar display to show a split screen view of a zoomed portion of the sonar, split frequencies, bottom lock (display scaled from the bottom up) or a combination of these options. For example, you can choose to show dual frequency at a 2X zoom

(Dual 2X) on one half and normal range dual frequency (Dual) returns on the other half. The display mode appears at the bottom of each sonar display.

Read the “Understanding Sonar” section beginning on page 100 for more information about sonar.

Configuring the Sonar Page

You can customize the Sonar page to fit your navigational needs. See “Configuring Main Pages” on page 44 for more information.



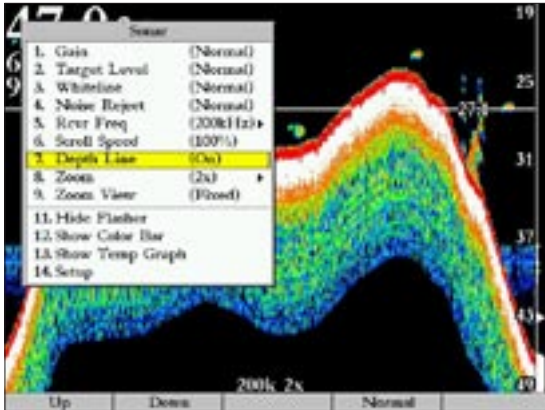
Sonar Page with Split Screen

Using the Sonar Adjustment Menu

Use the Sonar adjustment menu to access the settings and features most commonly used on the Sonar page.

To select an adjustment option from the Sonar page:

1. Press **ADJ** to display the Sonar adjustment menu. Soft Key options appear at the bottom of the display.
2. Press Up or Down on the **ROCKER** to highlight the option you want to change, and press **ENTER**, or press the Soft Key.



3. To exit any of the adjustment options, press the **Back** Soft Key, or press **QUIT**.

To change a Sonar adjustment menu setting:

1. Select an adjustment menu option using the method described previously.
2. Press Up or Down on the **ROCKER** to change the setting, range, or percentage (Off, 1-100%).
3. Press **ENTER** to accept the change, or **QUIT** to close the Sonar adjustment menu.

Sonar adjustment menu options include:

Gain—allows you to control the sensitivity of the unit's receiver, which provides some flexibility in the display. To see more detail, increase the receiver sensitivity by selecting a higher gain percentage. If too much detail is shown or if the screen is cluttered, select a lower gain percentage.

Target Level—adjusts which colors are used to display sonar information. A color bar appears on the right side of the screen as you adjust this setting. A higher percentage results in more strong-signal colors displayed on the sonar display. A lower percentage results in more weaker-signal colors displayed on the sonar display. This setting does not increase or decrease Gain.

Whiteline—controls how the unit displays information about the bottom type (hard or soft). With the Whiteline **Off**, the bottom

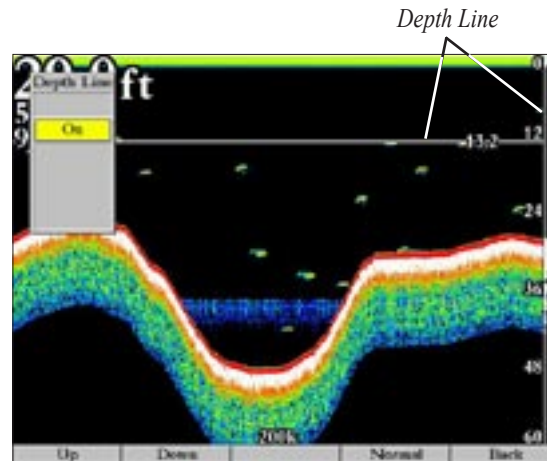
return displays as red and contains no information on bottom hardness. Set Whiteline at **Normal** or **1-100%** to determine bottom hardness. See page 102 for more information.

Noise Reject—helps filter unwanted noise from the graph. Noise Reject can be turned **Off**, set to **Normal** (automatically adjusts for optimum viewing), or to a fixed **1-100%** setting. When setting the Noise Reject, remember a higher noise rejection setting is less likely to show fish or structures.

Rcvr Freq—allows you to select a transducer frequency. Frequency refers to the pitch of the sound that the transducer sends and receives. You can choose 200kHz, 50kHz, Dual-Merged, or Dual-Independent. Choose **Dual-Merged** to show 200kHz and 50kHz data in the same window, or choose **Dual-Independent** to operate in dual frequency while allowing the sonar data for each frequency to be displayed independently.

Scroll Speed—adjust the rate at which the sonar display scrolls from right to left. If you are sitting still or the graph is moving too fast, slow the scroll rate or pause the scrolling.

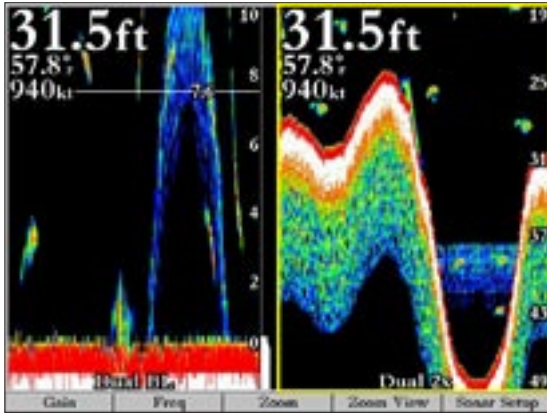
Depth Line—adds a horizontal depth line across the display, which is used to measure the depth of underwater objects. The depth of the line appears in a box on the right side of the line. Press Up or Down on the **ROCKER** to control the line position on the graph.



Zoom—used to select a display zoom scale. When you select a scale other than **Off**, the adjustment menu displays a new selection labeled **Zoom View** or **Span**. The Zoom function is divided into four display levels:

- **Off**—zoom is off.
- **2X**—displays the 2X zoomed picture on the full screen.
- **4X**—displays the 4X zoomed picture on the full screen.
- **Bottom Lock**—displays only the Bottom Lock (returns from the bottom up) picture on the full screen.

When selected, the zoomed picture becomes the Sonar page display.



Dual Frequency, Bottom Lock, and 2X Zoom

ZoomView/Span—available when a Zoom scale other than **Off** is selected. The **Zoom View** or **Span** setting is used to change the viewing range of a zoomed display. If the display is set to **Bottom Lock**, **Span** adjusts how far off the bottom the unit displays data.

Show/Hide Flasher—toggles the graphic Flasher representation on or off on the far right side of the graph. This graphic Flasher displays structure and bottom returns much the same as a true Flasher. This feature is particularly useful when using fish symbols.

Hide/Show Color Bar—toggles a gradient scale of the current Target Level setting on or off.

Show/HideTemp Graph—toggles the display of a temperature graph on or off on the Sonar page.

To adjust the range:

On the Sonar page, press the Up **RANGE** key to decrease the range, or press the Down **RANGE** key to increase the range.

The unit can be set to automatically track the bottom (Auto) or set to a user-specified depth range.

Using the Pointer on the Sonar Page

You can display the pointer (arrow) to reference sonar items and mark underwater waypoints. This makes it easier to find and use an object such as a stump as a future fishing location.

When using this feature, the Sonar page pauses. The depth continues to update while the display is paused, but the unit does not show any new sonar data until the Sonar page resumes scrolling. You may see a discontinuity from where the sonar information stops and where it starts again.

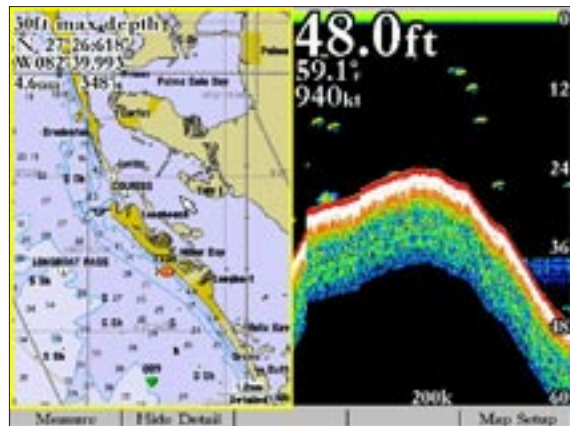
Marking an Underwater Waypoint

You can mark waypoints that are under the surface of the water. For more information about waypoints, see page 15.

To mark an underwater waypoint:

1. On the Sonar page, press Up, Down, Right, or Left on the **ROCKER** to move the pointer to the location you want.
2. Press and release **ENTER/MARK**. The Review Waypoint page appears with the waypoint's coordinates, default name, and pointer depth automatically filled in.
3. To change the name, symbol, or depth, highlight the appropriate field and press **ENTER**. Make any changes, and press **ENTER** when finished.

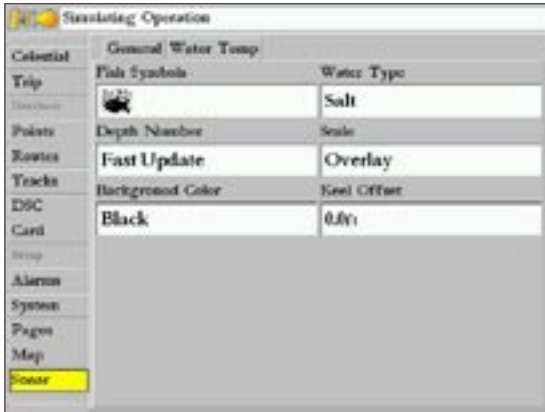
4. Highlight **OK**, and press **ENTER** to return to the Sonar page.
5. Press **QUIT** to resume scrolling.



Map Page with Split Screen

Sonar Tab

Use the **Sonar** tab on the Main Menu page to set up the Sonar page. The Sonar tab has two sub tabs: General and Water Temp.



To access and change a setting on the Sonar tab:

1. Press and hold **ADJ/MENU** for two seconds, or press the **Sonar Setup** Soft Key to display the Main Menu page.
2. Press Up or Down on the **ROCKER** to highlight the **Sonar** tab.
3. Highlight the setting you want to change, and press **ENTER**.
4. Press **QUIT** to return to the Sonar page or previous page.

General Sub Tab

Use the **General** sub tab to select fish symbols, water type, depth number, scale, background color, and keel offset. The available General sub tab options are:

Fish Symbols—select how the Sonar page displays underwater targets and background information. If you select **Off**, the unit does not display fish symbols. If you select a fish symbol, the Sonar page displays only the information related to that symbol.

Off

Fish Symbols Off.



Suspended targets display as fish symbols. Background information also appears.



Same as previous with the target depth attached.



Suspended targets display as fish symbols. No background information appears.



Same as previous with target depth attached.

Water Type—select the proper water type you are boating in. Because sound waves travel through fresh and salt water at different rates, you must select the Water Type to ensure accurate depth readings on the unit.

Depth Number—select how efficient the digital depth update rate is. **Fast Update** updates quicker and is recommended for low-noise and water deeper than 50 feet. **Auto** is best for shallow water or high noise areas, has a slower screen update, and is best used if you travel a wide variety of depths.

If the unit is unable to track the bottom for any reason, the digits in the depth window flash on and off to alert you that the unit is not tracking the bottom.

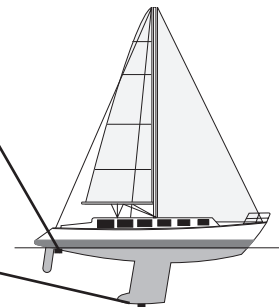
Scale—controls the appearance of the depth scale displayed vertically along the right side of the graph. You can configure the depth scale to appear in one of four different ways: as an **Overlay**, in the **Corners**, **Basic**, or **No Scale**.

Background Color—allows you to change the background color of the sonar display. Choices are **Black**, **Blue**, or **White**.

Keel Offset—enter the surface reading for the depth of a keel. This makes it possible to measure depth from the bottom of your keel instead of from the transducer's location. Enter a positive number to offset for a keel. It is also possible to enter a negative number to compensate for a large vessel that may draw several feet of water. The **Keel Offset** is reflected in the depth reading.

*Transducer at surface
Enter (+) a positive
number to show depth
from bottom of keel.*

*Transducer at bottom of keel
Enter (-) a negative number to
show depth from surface.*



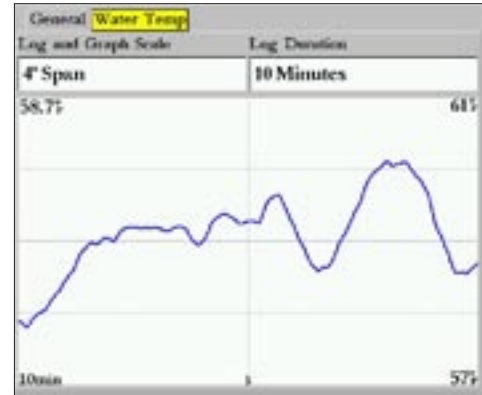
Calibrate Water Speed (button)—this is available only if you are using a speed-capable transducer/sensor. Calibration is required to ensure that the Water Speed displayed on your unit is accurate. The unit automatically uses the GPS ground speed, if it is available, for comparison on the calibration. If a GPS ground speed is not available, use either your boat's speedometer reading (not always accurate) or a stopwatch to determine your speed over a certain distance ($\text{distance} / \text{time} = \text{speed}$). It is recommended that the calibration take place in water having little or no current.

To calibrate the water speed:

1. On the **Sonar** tab, press the **Cal Water Spd** Soft Key.
2. Bring the boat to a cruising speed. Both the top ground and uncalibrated water speeds are shown at the bottom of the calibration window. Note your top speed, stop the boat, and press **ENTER**.
3. By default, the top ground speed automatically shows in the “What was your top water speed?” field. If a ground speed is not available, the top uncalibrated water speed is used instead. If the new speed is correct, highlight **OK**, and press **ENTER**. If you want to manually enter a calibration, press **ENTER** on the speed field, enter a new speed and press **ENTER**.

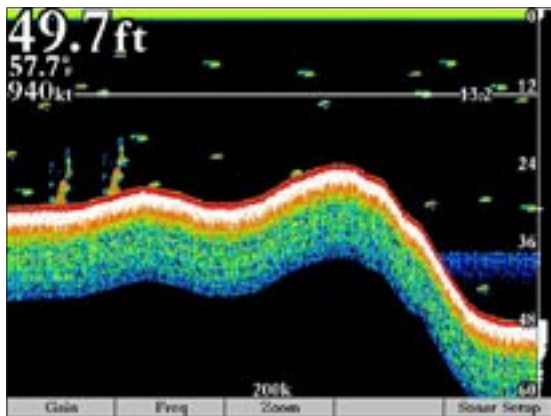
Water Temp Sub Tab

The **Water Temp** sub tab displays the water temperature log (if equipped with a temperature transducer/sensor or receiving sonar NMEA input). The graph reads from right to left, so the most recent temperature measured is displayed on the far right side of the graph. The dotted grid lines within the graph indicate intervals in the temperature scale and the duration of time.



Understanding Sonar

The transducer mounted on your vessel transmits sound waves toward the bottom of the water in a cone-shaped pattern. When a transmitted sound wave strikes an underwater object—such as the bottom, a structure, or a fish—sound is reflected back to the transducer. The transducer collects the reflected sound waves and sends the data to a Garmin Sounder Module and then to the GPSMAP 3005C to be processed and displayed. The underwater data is shown on the Sonar display in the order that it is returned; first returned is the top of the display.

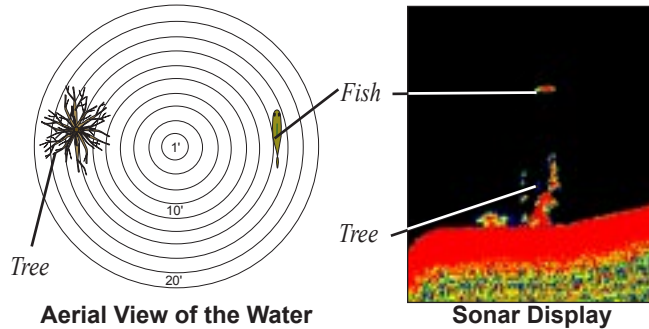


Generally speaking, if the only thing between the transducer and the bottom is water, the first strong return comes from the bottom directly below the transducer and sets the bottom level. Weaker secondary returns provide the detailed data. Stronger returns display in darker colors, with red being the strongest return.

Understanding the Sonar Display

One of the first things to understand about sonar is that the transducer sends a beam down to the bottom of the water, much like the beam of a flashlight. The beam starts small near your vessel and expands as it gets to the bottom. See “Transducer Coverage” on page 101 for more detailed information.

The Sonar page does not display a three-dimensional representation of the underwater environment; the display is in two dimensions, much like if you took a picture of an aquarium. Only the depth of the item in the water is displayed. The Sonar display does not show you where an item is located horizontally in the water, as shown in the drawings below. The fish is not directly above the tree in reality, but it can look like it is on the Sonar page.



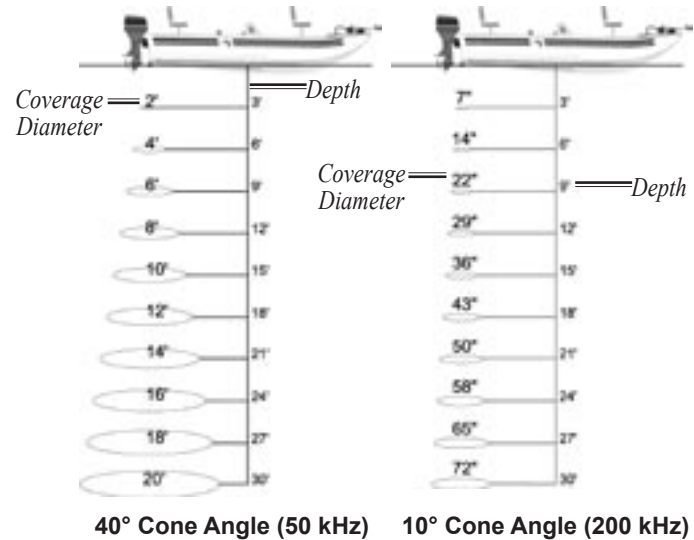
Transducer Coverage

The area covered by the transmitted sound waves is determined by the cone angle of the transducer and the water depth. The wide cone angles (40°) associated with low frequencies (50 kHz) provide a large coverage area for finding fish within a coverage width that is approximately 2/3 of the water depth. However, this also means that wide cone angles produce less bottom detail and resolution. As shown in the drawing on the near right, the 40° cone angle produces a coverage area of approximately a 20-foot diameter circle at a 30-foot depth.

The narrow cone angles (10°) associated with the high frequencies (200 kHz) provide better bottom resolution and crisper detail, but cannot show a large coverage area for finding fish. The 10° cone

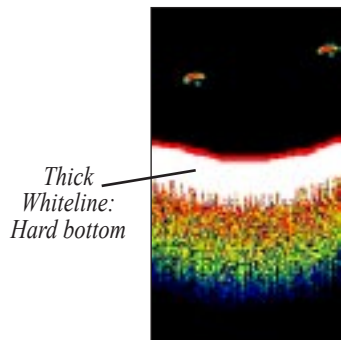
angle provides a coverage width that is approximately 2/10 of the water depth. As shown in the drawing on the far right, the 10° cone angle produces a coverage area of approximately a 6-foot diameter circle at a 30-foot depth.

Dual frequency mode combines both frequencies to get the best coverage area and contour/depth readings.

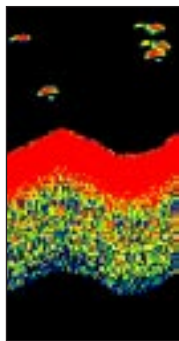


Whiteline

The Garmin Sounder Module can help you determine whether the bottom is hard or soft. When the sonar sound waves are reflected back by the bottom, a hard bottom returns a stronger signal than a soft bottom. A thin whiteline indicates a softer bottom, whereas a thick whiteline indicates a harder bottom. Normally, a red line is used to show the point where water meets the bottom. This line follows the bottom contour, along with any significant objects lying on the bottom. The unit uses the whiteline function to make the bottom layer information easier to distinguish.



Whiteline On

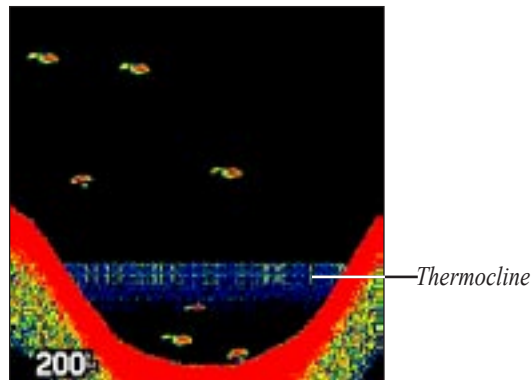


Whiteline Off

Thermoclines

A rough definition of a thermocline is a break in water where the water temperature changes faster than the water above it. Thermoclines are shown as the weakest colors.

One of the unique features offered by Garmin is See-Thru[®] technology, which allows the Garmin Sounder Module to hear both weak and strong signals simultaneously so as to identify fish returns under the toughest conditions, such as suspended in thermoclines or even hiding near structures. See-Thru technology allows the transducer to “see through” thermoclines and locate fish.



APPENDIX

Specifications

Physical

Size: 4.7" H x 7.8" W x 3.0" D (120 mm x 197 mm x 75 mm)

Weight: 1.8 lbs (0.8 kg)

Display: 5" diagonal (12.7 cm) high resolution, 256-color TFT
(640 x 480 pixels), full VGA, with adjustable backlighting

Case: Fully gasketed, high-impact plastic alloy, waterproof to
IEC 60529-IPX-7

Temp. Range: 5°F to 131°F (-15°C to 55°C)

GPS Performance (with GPS 17)

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

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: 10-35v DC

Usage: 12 watts max. at 10v DC

Fuse: AGC-5 - 2.0 Amp

Caring for the GPSMAP 3005C

The GPSMAP 3005C case is constructed of high quality materials and does not require user maintenance except cleaning.

Cleaning the Case

Clean the unit's outer casing (except for the screen) using a cloth dampened with a mild detergent solution and then wipe dry. Avoid chemical cleaners and solvents that may damage plastic components.

Cleaning the Screen

The GPSMAP 3005C screen should be cleaned using a soft, clean, lint-free cloth. Water, isopropyl alcohol, or eyeglass cleaner can be used if needed. If these are used, apply the liquid to the cloth and then gently wipe the screen with the moistened cloth.

Storage

Do not store the GPSMAP 3005C where prolonged exposure to extreme temperatures may occur (such as in the trunk of a car) as permanent damage may result. User information, such as waypoints and routes are retained in the units 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 computer (transferring it to MapSource), or storing on a data card.

Water Immersion

The GPSMAP 3005C is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the unit. After submersion, be certain to wipe and air dry the unit before reuse.

Installing and Removing the Data Card

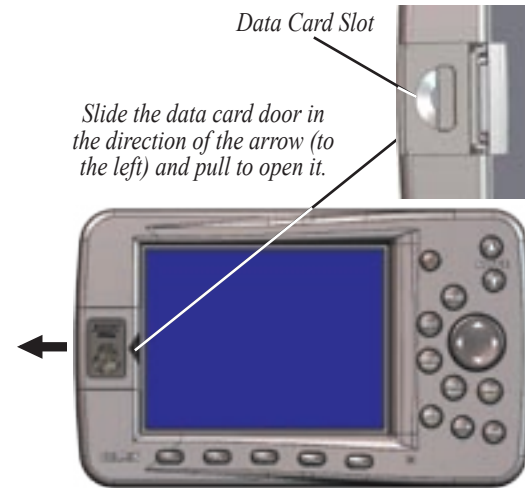
The GPSMAP 3005C uses optional Garmin marine BlueChart and MapSource data cards to display digital charts and maps on-screen. The Data card is installed in the card slot located on the front left of the unit. Data cards can be installed or removed at any time, whether the unit is on or off.

To install the data card:

1. Open the data card door by sliding the door in the direction of the arrow, and lift the door open from left to right.
2. Insert the card into the slot, with the label facing the right screen and the handle toward you.
3. Firmly push the card into the unit. It is not necessary to force the card and about 1/2" is still exposed when it is properly inserted. If the unit is on, a confirmation tone sounds and a message appears on-screen noting the card details when the card is properly installed and accepted.
4. Close the cover until it locks.

If you insert a data card and get a card format not recognized message, remove the card and reinsert it. If the card is still not recognized, contact Garmin Product Support 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.

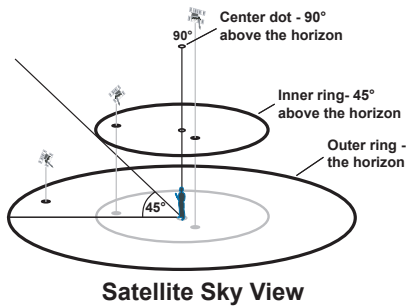
The first time you insert a data card, the unit takes a few seconds to read the card. After the data card is read, a summary page appears. Press **ENTER** to acknowledge.



To remove a data card:

1. Open the data card door by sliding the door in the direction of the arrow, and lift the door open from left to right.
2. Grasp the card handle and pull out firmly.
3. If the unit is on, a confirmation tone sounds when the data card is removed.

Satellite Information



Satellite Location

The location of each available satellite is displayed over two location rings on the Satellite Information page. The outer ring represents the horizon, the inner ring represents 45° above the horizon, and the center represents directly overhead. When the unit is using a satellite for navigation, the satellite number is highlighted on the location rings. The unit can be set to display satellite location with North or your current track at the top of the display.

Satellite Strength Indicator Bars

The Satellite Strength Indicator Bars show the strength of the signal being received, and the status of the signal. The bars are either shaded or filled. The hollow gray bar means the GPS is in the process of storing orbital data it is receiving from the satellite signal. When the bar turns solid green, the GPS is using the satellite signal for navigation. A "D" in or above the bar means differential corrections (WAAS or DGPS) are being applied to that satellite.

Date, Time, and Current Location

The GPS gets date and time information from the satellite's on-board atomic clock. When the GPS receiver has achieved a 2D or 3D GPS location, the current location is displayed in the selected location format.

What is WAAS?

The Wide Area Augmentation System (WAAS) is an F.A.A. funded project to improve the overall integrity of the GPS signal. It is a space-based system that broadcasts integrity information and correction data as determined by ground reference stations. WAAS testing completed in September of 2003 confirmed an accuracy of 2 to 3 vertical meters throughout the majority of the continental U.S. and portions of Alaska. For more information, go to <http://gps.faa.gov/Programs/WAAS/waas.htm>.



NOTE: *If you are using the GPSMAP 3005C outside of the U.S.A., we recommend you turn off WAAS for the most accurate location fix.*

What is Differential GPS (DGPS)?

The U.S. and Canadian governments (among others) have set up Differential GPS (DGPS) stations to transmit correction signals. They are operational in coastal areas and on many navigable river systems. The DGPS system is available for use without a fee.

Please refer to the U.S. Coast Guard's Web site, <http://www.navcen.uscg.gov/> for locations and the status of the differential sites. Using DGPS requires additional equipment.

Digital Selective Calling (DSC)

Digital Selective Calling (DSC) uses marine VHF radio and Global Positioning System (GPS) technologies to transmit and receive location information. DSC is used by mariners to assist them in two major areas: Distress Calls and Position Reporting.

A non-emergency DSC Position Report allows mariners to exchange and display the positions of one another. Once a DSC position is received, the mariner may choose to create a waypoint or to show the received position on an electronic map.

An emergency DSC Distress Call allows a vessel in trouble to transmit a substantial amount of information in a single transmission or “call,” without the need for voice communication. When any nearby rescuer receives the DSC signal, an alarm sounds and they immediately receive the position of the caller.

The rescuer can then choose to navigate (Go To) the callers position to assist or forward the call on to the Coast Guard. When the Coast Guard receives the call, they can immediately access the callers information (such as who they are and the type of vessel) in their database while they are in transit to the callers position.

Any time a vessel receives a DSC call, they can store that location and quickly navigate to that position using a Go To. This makes DSC a time-saver, especially in an emergency situation. In order

to use DSC, users must first register their VHF radio with the FCC and receive a Maritime Mobile Service Identity (MMSI) number.

What is a Maritime Mobile Service Identity (MMSI)?

Maritime Mobile Service Identity (MMSI) basically allows a VHF radio to act like a phone. In order to make a “call” on a phone, you first need a phone number to dial. The 9-digit MMSI number acts like a phone number when used in a Position Report and as a unique identifier to the Coast Guard when used in an emergency Distress Call. In order to obtain a Maritime Mobile Service Identity (MMSI) number, users must register their VHF radio with the FCC (Form 605). **Garmin does not supply this number!**

How Are MMSI Assignments Obtained?

Non-commercial users (recreational users who remain in domestic waters and only carry VHF, EPIRB (Emergency Position Indicating Radio Beacons, and Radar) are not required to have a FCC ship station license. The FCC and Coast Guard have authorized some second and third-party vendors to assign MMSI numbers. This service is limited to registering recreational vessels only. To receive information on how to obtain a recreational MMSI number, contact: <http://www.uscg.mil/rescue21/links/mmsi.htm> or <http://wireless.fcc.gov/marine/>.

Non-Federal Users in the United States

Commercial users, or those who travel outside the U.S. or Canada, must apply for a ship station license, or an amendment to a ship station license. To find out if you require a Ship Station license contact: <http://wireless.fcc.gov/marine/ftsht14.html>. If your vessel requires licensing by the FCC, you will obtain a MMSI during the application/licensing process when you file FCC Forms 159 and 605.

Federal Users in the United States

Federal users can obtain MMSI assignments from their agency radio spectrum management office. These procedures are currently under review by the NTIA (National Telecommunications and Information Administration).

Users Outside the United States

Users can obtain an MMSI assignment from their telecommunications authority or ship registry, often by obtaining or amending their ship station license.

Users in Canada

Industry Canada is responsible for assigning MMSI numbers to commercial and recreational vessels. Information is available at the following Web site:
<http://apollo.ic.gc.ca/english/mmsi.html>.

For more information regarding MMSIs visit:
<http://www.navcen.uscg.gov/marcomms/gmdss/mmsi.htm>.

How Can Garmin Help You with DSC?

To receive Distress Calls or Position Reports, you must have a DSC-equipped chartplotter as well as a VHF radio with DSC support. During normal, non-emergency Position Report communication, Channel 70 (156.525 MHz) has been set aside as the VHF/DSC digital call channel.

For a Distress Call, a mariner presses the MayDay button on the VHF radio. The call transmits on an emergency channel with the MMSI number attached to the call (if you have DSC support). Any DSC-equipped mariner (on sea or land) within range can receive the call.

When the Garmin GPSMAP 3005C is connected to a VHF radio with DSC support, the GPS unit displays a Call List, Log, and a Directory to store incoming information received from another user's DSC capable VHF/GPS combination. Basic wiring is required for the Garmin unit and VHF radio to send and receive NMEA data from each other. See the *GPSMAP 3005C & GPS 17 Installation Instructions*.

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 TD 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 a waypoint. You must have the correct chain number as well as the secondary station identifiers to use this option correctly. These values vary for each coordinate set or geographical location. Failure to enter correct information could result in inaccuracies for the desired destination. After the waypoint is stored in the unit’s memory, it always references 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 reflects those changes. Because the GPSMAP 3005C 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 on the Units tab on the Main Menu-System page. The Loran TD Setup window contains the fields to select the LORAN Chain Number, Primary and Secondary Stations, and TD Offsets.

To setup LORAN TD from the Main Menu:

1. Using the **ROCKER**, highlight the **System** tab, press Right on the **ROCKER** to highlight the **Units** sub tab. Highlight the **Position Format** field, and press **ENTER**.
2. Highlight **Loran TD**, and press **ENTER**.
3. Highlight the **Setup** button to the right and press **ENTER**.

Loran TD Setup	
Loran Chain Number	
CRL897N	
TD Station 1	TD Offset 1
W	0.0
TD Station 2	TD Offset 2
Y	0.0

4. To change the settings of any of the five fields, highlight the field, press **ENTER**, select the setting you want, and press **ENTER** again.
5. Press **QUIT** to return to the Main Menu.

If the active GRI Chain, secondary stations, or offsets were changed since the waypoint was created, the waypoint now references the active GRI-chain and secondary stations and adjusts 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 latitude/longitude 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 can download Garmin's *Loran TD Position Format Handbook* from the Garmin Web site.

Navigation Terms

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

Bearing (BRG)—the compass direction from your current location to a destination.

Course—the course between the active from and to waypoints.

Depth—the depth below transducer. This field is active only if the GPSMAP 3005C is connected to a Garmin Sounder Module or if NMEA depth is available.

Distance (Dist)—the distance from the current location to a destination.

Dist to Destination—the distance from the current location to a Go To destination, or the final waypoint in a route.

Dist to Next—the distance from current location to a Go To destination, or the next waypoint in a route.

DOP (Dilution of Precision)—reflects the quality of the GPS signals and satellite geometry.

Elevation—the altitude (height) above mean sea level (MSL).

ETA (Estimate Time of Arrival)—the time you estimate to reach your destination waypoint, based on current speed and track.

ETA at Destination—the time you estimate to reach a Go To destination or the final waypoint in a route.

ETA at Next—the time you estimate to reach a Go To destination or the next waypoint in a route.

Fuel—the fuel required to travel from current location to the indicated route waypoint.

GPS Accuracy—estimated accuracy of the GPS position.

Leg Dist—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 on the distance between second-by-second position readings.

Off Course—the distance you are off course in either direction, left or right.

Pointer—the arrow indicating the direction to travel to the next point on the route.

Speed—the current velocity at which you are travelling, relative to a ground position.

Sunrise—the time at which the sun rises on this day.

Sunset—the time at which the sun sets on this day.

Time Of Day—the current time.

Time To—the estimated time required to reach a Go To destination or the next waypoint in a route. Also known as “estimated time en route” (ETE).

Time to Dest—the estimated time required to reach a Go To destination or the final waypoint in a route.

Time to Next—the estimated time required to reach a Go To destination or the next waypoint in a route.

To Course—the recommended direction to steer to reduce course error or stay on course. Provides the most efficient heading to get back to the 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 the last reset. See also “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.

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

Voltage—current voltage reading being received by unit.

Water Speed—the speed through the water. This field is only active if the GPSMAP 3005C Sounder is receiving speed readings from a NMEA device or a Garmin Sounder Module.

Water Temp—the water temperature. This field is only active if the GPSMAP 3005C is receiving temp readings from a NMEA device or a Garmin Sounder Module.

Waypoint Destination—the final waypoint in the route or the destination waypoint.

Waypoint Next—the next waypoint in the route.

Messages

Accuracy Alarm—the GPS accuracy has fallen outside of user-set value.

Alarm Clock—the alarm clock has sounded.

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 arrived at the destination waypoint.

Battery Alarm—the input voltage has fallen below the specified value.

Can't Read User Card—error reading card; remove and reinsert. Contact your dealer or Garmin Customer Service if the problem persists.

Can't Read Voltages That High, Limited To Top Of Range—voltage range must be between 10.0 and 35.0 volts for the GPSMAP 3005C.

Can't Read Voltages That Low, Limited To Bottom Of Range—voltage range must be between 10.0 and 35.0 volts for the GPSMAP 3005C.

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

Can't Write User Card—error reading card; remove and reinsert. Contact your dealer or Garmin Product Support if the problem persists.

Database Error—internal problem with the unit. Contact your dealer or Garmin Product Support to have the unit serviced.

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

Directory Item With This MMSI Already Exists—MMSI number already in DSC directory. Use a different number.

Directory Memory is Full Can't Create Entry—DSC directory has reached maximum of 100 contacts. Delete unneeded contacts to add new ones.

Distress Call—a DSC distress call has been received. Take appropriate action.

Lost Remote GPS Connection—there is a problem with GPS antenna wiring. Check connections.

Lost Satellite Reception—the unit has lost satellite signals. Check antenna connections or try moving to a location with a clear view of the sky.

No Proximity Waypoints/Routes/Tracks/User Waypoints Found—attempted to transfer user data from a data card that does not contain the specified type of data. Make sure there is data to transfer on data card.

Not All Maps Fit, Some Maps will not be drawn—maximum number of individual maps on data card(s) was exceeded.

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

Proximity Alarm Memory is Full—you used all available proximity waypoints.

Proximity Alarm: <Waypoint>—you entered the alarm radius for the proximity waypoint indicated.

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

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

Route Is Full—you attempted to add more than 300 points to a route. Reduce the number of points or create a second route.

Route Memory Is Full, Cant Create Route—the maximum amount of 300 routes is already in the unit's memory and no additional routes can be added until existing ones are removed.

Route Truncated—an uploaded route from another device has more than 300 points and was truncated to fit.

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

Simulating Operation—the unit is in Simulator Mode. Do not use for normal navigation!

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

Track Memory Is Full, Can't Create Track—the 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 uploaded track does 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.

User Card Not Found—attempted to transfer user data without a data card containing user data being present in the Data Card slot.

Water Temperature Alarm—sonar has reported a temperature above, below, inside, or outside the specified value(s).

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

Waypoint Memory Is Full Can't Create Waypoint—you have used all 4,000 waypoints available. Delete unwanted waypoints to make space for new entries.

Optional Accessories

The following accessories are designed to enhance the operation of the GPSMAP 3005C.

To obtain replacement parts and optional accessories, contact your Garmin Dealer, Garmin Product Support in the U.S.A. at 800-800-1020, or Garmin Europe at 44-0870-8501241.



WARNING: *Garmin accessories have been designed and specifically tested for use with Garmin products. Accessories offered by other manufacturers have not been tested or approved for use with Garmin products. Use of such accessories could cause damage to the GPSMAP 3005C and void the warranty.*

GDL 30/GDL 30A Marine Weather XM Satellite

Receiver—provides graphical and textual marine XM WX weather information that can be viewed through the GPSMAP 3005C when you subscribe to the XM WX Satellite Weather service.

GMS 10 Network Port Expander—enables you to connect more than two MFDs and other Garmin Marine Network devices to share data such as weather, mapping, sounder data, and position information.

GSD 20 Remote Sounder Module and Transducers—provides SONAR capabilities to the GPSMAP 3005C.

GMR 20/40 Marine Radar—adds important radar information to the GPSMAP 3005C.

Marine Network Cables

MapSource Software CD-ROMs—enhances the basemap, creates waypoints and routes from your computer. MapSource offers several detailed mapping options that are compatible with the GPSMAP 3005C, including BlueChart.

Programmable Data Cards—blank data cards are available in 8 MB, 16 MB, 32 MB, 64 MB, and 128 MB sizes. Download points of interest, marine data, topographical information, and more from MapSource CD-ROMs to a data card, either directly through your GPSMAP 3005C using the PC Interface Cable, or with the Data Card Programmer.

USB Data Card Programmer—programs blank data cards at high speed through a PC.

Pre-Programmed Data Cards—data cards pre-programmed with either Garmin BlueChart or Fishing Hot Spots map data.

Product Registration

Help us better support you by completing our online registration today! Have the serial number of your GPSMAP 3005C handy and connect to our Web site (<http://www.garmin.com>). Look for the Product Registration link on our Home page.

Use this area to record the serial number (8-digit number located on the back of the box) in case your GPSMAP 3005C 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: ____ _

Contact Garmin

If you should encounter any difficulty while using your GPSMAP 3005C, or if you have any questions, in the U.S.A. contact Garmin Product Support by phone: 913/397.8200 or 800/800.1020, Monday–Friday, 8 AM–5 PM Central Time; or by e-mail at sales@garmin.com.

In Europe, contact Garmin (Europe) Ltd. at 44/0870.8501241.

Software License Agreement

BY USING THE GPSMAP 3005C, 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.

Limited Warranty

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

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

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

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

To obtain warranty service, contact your local Garmin authorized dealer or call Garmin Product Support for shipping instructions and an RMA tracking

number. The unit should be securely packed with the tracking number clearly written on the outside of the package. The unit should then be sent, freight charges prepaid, to any Garmin warranty service station. A copy of the original sales receipt is required as the proof of purchase for warranty repairs.

Garmin International, Inc.
1200 E 151st Street, Olathe, Kansas 66062 U.S.A.
Tel. 913/397.8200
Fax. 913/397.8282

Garmin (Europe) Ltd.
Unit 5, The Quadrangle, Abbey Park Industrial Estate, Romsey,
SO51 9DL U.K.
Tel. 44/0870.8501241
Fax 44/0870.8501251

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

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

The Garmin GPSMAP 3005C 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 3005C 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.

FCC Compliance



The GPSMAP 3005C complies with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation, and are more stringent than “outdoor” requirements.

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

This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the

instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

The GPSMAP 3005C does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

Safety Information

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 3005C 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, not replace, the use of authorized government charts. Only official government charts and notices to mariners contain all information needed for safe navigation. As always, the user is responsible for their prudent use.

Use the GPSMAP 3005C at your own risk. To reduce the risk of unsafe operation, carefully review and understand all aspects of this *Owner's Manual*. Thoroughly practice operation using the simulator mode prior to actual use. When in actual use, carefully compare indications from the GPSMAP 3005C to all available navigation sources, including the information from other NAVAIDS, visual sightings, charts, etc. For safety, always resolve any discrepancies before continuing navigation.

CAUTION: IT IS THE USERS 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.

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.

WARNING: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This Notice is being provided in accordance with Californias Proposition 65. If you have any questions or would like additional information, please refer to our Web site at <http://www.garmin.com/propp65>.

INDEX

A

Accessories 117
 Accuracy 59
 Accuracy Circle 87
 Acquiring Satellites 5
 Active Track Log 66
 ADJ/MENU Key 2
 Advanced Map Card Setup 88
 Alarms
 navigation 75
 sonar 76
 system 74
 Alarms Tab 74
 Anchor Drag 75
 Arrival Alarm 75
 AutoLocate 60
 Automatic Backlight 77

B

Backlight 4, 77
 Basic Operation 8
 Battery Alarm 75
 Beeper 78
 BlueChart 10, 12, 105

C

Card Tab 73
 Care Information 104

Celestial Tab 63
 Chart 86
 Chart Colors 85
 Cleaning 104
 Clock Alarm 75
 Comm Tab 81
 Compass Page 53
 Contact Garmin 118
 Copying Routes 37, 38
 Correction Signals 107
 Course Up 86
 Create
 routes 35
 waypoints 15
 Creating Waypoints
 Graphically 16
 Manually 18

D

DATA/CNFG Key 2
 Data Card
 installing 105
 removing 105
 Data Fields 45
 DATA Key 48
 Data Transfer 81
 Date/Time 106
 Datums 79
 Daylight Saving 81
 Deep Water Alarm 76

Delete

 routes 38
 tracks 68
 waypoints 21, 24
 Delete By Symbol 24
 Depth 79
 DGPS 107
 Differential GPS 107
 Digital Data Fields 45
 Digital Selective Calling. *See* DSC
 Dilution of Precision 112
 Distance Units 80
 DOP 112
 DSC 69, 108
 DSC Directory 71, 72
 DSC Distress Call 69, 109
 DSC Item Review 71
 DSC Log 71
 DSC Position Report 70, 109
 DSC Setup 72
 DSC Tab 69
 Dual Frequency 92

E

Edit
 routes 39
 waypoints 20
 Elevation Units 80
 ENTER/MARK Key 2, 15
 Entering Data 9, 10

F

Factory Defaults 46
 Factory Settings 78
 FCC Compliance 120
 FCTN Key 47
 Features 8
 FIND Key 2, 13
 Fish Alarm 76
 Fish Symbols 91, 97
 Following a Route 36
 Follow Track 30, 31, 68
 Fuel 41
 Function Adjustments 47
 Function Windows 47

G

Getting Started 1
 Go To 28
 Go To Point 28
 GPS Accuracy Alarm 75
 GPS Receiver
 initializing 5
 GPS Status Icon 5
 GPS Tab 5, 6, 58

H

Heading 80
 Highway Page 54–56
 Options 55

I

Installation 3
 Interface Keys 2
 Introduction i
 Invert Route 37

L

Labels 87
 Language 78
 Leg Distance 41
 Leg Fuel 41
 Leg Time 41
 Limited Warranty 119
 LORAN TD 110
 using 110

M

Magnetic North 80
 Main Menu 57–90
 alarms tab 74
 card tab 73
 celestial tab 63
 DSC tab 69
 GPS tab 58
 highway tab 90
 map tab 85
 overview 57
 pages tab 84
 points tab 65
 routes tab 66
 sonar tab 90

 system tab 77
 temp tab 89
 tide tab 61
 tracks tab 66
 trip tab 64
 Main Pages 43–56
 compass page 53
 configuring 44
 highway page 54
 map page 48
 Manage User Card 74
 Man OverBoard. *See* MOB
 MapSource 10, 73, 105
 Map Cursor 11, 49
 Map Data 10
 Map Datums 79
 Map Outlines 85
 Map Page 48–53
 options 51
 Ranges 50
 Map Pointer 11
 moving 11
 Map Ranges 50
 Map Setup 52
 Map Tab 85
 detail sub tab 86
 labels sub tab 87
 nav sub tab 87
 prefs sub tab 85
 source sub tab 88

Maritime Mobile Service Identity.
 See MMSI
 MARK Key 17
 Merge From Card 74
 Messages 114
 MMSI Number 108
 MOB 33
 Moon Phase 63
 Moon Rise/Set 63

N

NAV/MOB Key 2, 28, 31, 32, 73
 Navigation Terms 112
 Nav Alarms 75
 NMEA 82
 NMEA Interface 82
 NMEA Output Setup 83
 North Reference 80

O

Off Course Alarm 75
 On-Screen Buttons 9
 Options
 selecting 9
 Orientation 86

P

Pages Tab 84
 PAGE Key 2
 Plan Route 41
 Points Tab 26

Position Format 79
 Position Report 70
 POWER Key 2
 Pressure 80
 Product Registration 118
 Proximity Alarms 27
 Proximity Waypoints 26
 clearing 27
 Proximity Waypoint List 26

Q

QUIT Key 2

R

RANGE Keys 2, 48
 Re-Evaluate Route 37
 Receiver Status 59
 Referencing Waypoints 22
 Replace From Card 74
 Reviewing Routes 38
 Reviewing Tracks 68
 Review Waypoint Page 20
 ROCKER Key 2
 Routes 34–42
 copying 37
 creating 34
 deleting 38
 editing 39
 following 37
 planning 41

- reviewing 35, 38
- TracBack 30
- Routes Tab 66
- Route List 37
- S**
- Safety Information 121
- Satellite Location 106
- Satellite Sky View 106
- Saved Tracks 67
- Scroll Bar 9
- Serial Number
 - electronic 78
- Services 78
- Setup Tab 77
- Set Initial Position 60
- Shallow Water Alarm 76
- Show Detail 52
- Signal Strength Bars 58
- Simulator 77
- Simulator Mode 6
 - setting up 7
 - turning off 7
 - turning on 6
- Simulator Set Position 7
- Simulator Track 7
- Simulator Track Control 7
- Simulator Transducer 7
- Skyview Orientation 60
- Software License Agreement 118

- Software Version 78
- Soft Keys 3
- Sonar 91–102
 - understanding 100–102
- Sonar Alarms 76
- Sonar Page 91
 - adjustment menu 93
 - configuring 92
- Sonar Tab 97
- Source, GPS 60
- Specifications 103
- Speed Filter 77
- Speed Units 80
- Status Bar 3, 5
- Storage 104
- Sunrise 41
- Sunset 41
- Sun Rise/Set 63
- Symbol Set 86
- Symbol Size 86
- System Alarms 75
- System Information 78
- System Mode 77
- System Tab 77
 - comm sub tab 81
 - general sub tab 77
 - network sub tab 84
 - time sub tab 81
 - units sub tab 79

- T**
- Temperature 79, 89
- Temperature Scale 90
- Temperature Tab 77, 89
- Temperature Time Duration 90
- Thermoclines 102
- Tide Stations 62
- Tide Tab 61
- Time Format 81
- Time Zone 81
- TracBack 30, 32
 - Tips 32
- Tracks
 - deleting 68
 - reviewing 68
 - saved 67
- Tracks Tab 66
- Track Color 67
- Track Logs 30, 31, 66
- Track Record Mode 67
- Track Up 86
- Track Value 67
- Transducer 101
- Trip Tab 64
- Turn Unit On and Off 4
- U**
- Underwater Waypoints 96
- Unit Basics 1
- User Waypoint List 23

- W**
- WAAS 59, 60, 107
- Water Immersion 104
- Water Temperature Alarm 76
- Waypoints 15–27
 - creating 12, 16
 - deleting 21, 25
 - editing 20
 - marking 16
 - moving 22
 - proximity 26
 - referencing 22
 - reviewing 20
 - underwater 96
 - using 15
- Waypoint List 23
- Waypoint Name
 - changing 20
- Waypoint Symbol
 - changing 20
- Whiteline 102
- Wide Area Augmentation System.
 - See WAAS

- Z**
- Zoom 48, 55

**For the latest free software updates (excluding map data) throughout the life of your
Garmin products, visit the Garmin Web site at www.garmin.com.**



© Copyright 2005 Garmin Ltd. or its subsidiaries

Garmin International, Inc.
1200 East 151st Street, Olathe, Kansas 66062, U.S.A.

Garmin (Europe) Ltd.
Unit 5, The Quadrangle, Abbey Park Industrial Estate, Romsey, SO51 9DL, U.K.

Garmin Corporation
No. 68, Jangshu 2nd Road, Shijr, Taipei County, Taiwan

www.garmin.com

Part Number 190-00531-00 Rev. A