

GPSMAP 3006C/3010C

color chartplotter

owner's manual



(GPSMAP 3006C shown)

© Copyright 2004 Garmin Ltd. or its subsidiaries. All Rights Reserved

Garmin International, Inc.
1200 East 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. 44/1794.519944
Fax 44/1794.519222

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

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 and of any revision to 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 or revision 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.

Web site address: www.garmin.com

GARMIN®, Autolocate®, GPSMAP®, MapSource®, BlueChart® and TracBack® are registered trademarks of Garmin Ltd. or its subsidiaries and may not be used without the express permission of Garmin. Fishing Hots Spots® is a registered trademark of Fishing Hots Spots, Inc.

Welcome

Thank you for choosing the Garmin GPSMAP 3006C/3010C. The GPSMAP 3006C/3010C utilizes the proven performance of Garmin GPS and full-featured mapping to create an unsurpassed marine Multi-Function Display (MFD). Please take a moment now to compare the contents of this package with the packing list on page 6 of this manual. If any pieces are missing, please contact your Garmin dealer immediately.

About This Manual

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

The **Introduction** contains the Table of Contents, Warnings, and Packing List.

The **Getting Started** portion provides a unit overview and information that teaches you a basic working knowledge necessary to use the unit to its fullest potential.

The **Reference** portion is divided into sections that provide detailed references to the advanced features of the GPSMAP 3006C/3010C. This allows you to concentrate on a specific topic quickly and can be used to look up detailed information about the GPSMAP 3006C/3010C.

The **Appendix** contains information such as specifications, regulatory information, and unit care information. You can also find warranty and support information in the Appendix.

An **Index** is provided at the end of the manual for reference. Simply look up the topic you wish to learn about and read the page or pages listed.

Customer Service Product Registration

Help us better support you by completing our on-line registration today!

Have the serial number of your GPSMAP 3006C/3010C handy and connect to our Web site (www.garmin.com). Look for the Product Registration link on the Home page. Also, be sure to record your serial number in the area provided on this page.

Introduction

Welcome

Serial Number

Use this area to record the serial number (8-digit number located in the back of the unit) in case it is lost, stolen, needs service, or if you need to contact Technical Support. Be sure to keep your original sales receipt in a safe place or attach a photocopy inside the manual.

Serial Number:

--	--	--	--	--	--	--	--



The Garmin GPSMAP 3006C/3010C has no user-serviceable parts. Should you ever encounter a problem with your unit, please take it to an authorized Garmin dealer or contact Garmin Customer Service (see page 86) for repairs. The GPSMAP 3006C/3010C 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.

Introduction

Table of Contents

Introduction.....	1-6
Welcome	1
Table of Contents	2
Warnings and Cautions	5
Packing List & Accessories	6
Getting Started	7-25
Map Data/Installation/Manual Conventions	7
Unit Features.....	8
3006C/3010C Keypad Usage.....	9
3006C/3010C Data Entry/Shortcut/Soft Keys	10
Using the Optional Marine Remote	11
Understanding the Features.....	12
Power and Backlighting.....	13
Selecting Options	14
Entering Data	15
Initializing the Receiver	16
Status Bar	17
Main Pages	18
Configuring Main Pages	19
Using Functions/DATA Key	21
Creating Waypoints Introduction	22
Basic Navigation.....	24
Reference	26-74
How to Use the Map Page	26

Introduction

Table of Contents

Using the Map Cursor	27
Selecting Map Ranges	28
Map Page Options	29
Using the Compass Page.....	33
Using the Highway Page.....	34
Highway Page Options	35
Video Page	35
Creating Waypoints	36
Reviewing and Editing Waypoints	39
Waypoint Lists	41
Going to a Destination.....	44
Follow Track/TracBack	45
Man OverBoard	47
Creating a Route.....	48
Following a Route	49
Reviewing a Route.....	50
Editing a Route.....	51
Planning a Route	53
Using the FIND key.....	54
Main Menu Page.....	55
Main Menu: GPS Tab.....	56
Main Menu: Tide Tab	58
Main Menu: Celestial Tab	60
Main Menu: Trip/Tracks Tabs	61
Main Menu: DSC Tab	63
Main Menu: Cards Tab	67
Main Menu: Alarms Tab	68
Main Menu: System Tab	69
Main Menu: Temp Tab	74

Introduction
Table of Contents

Appendices	75-89
Appendix A: Time Offsets	75
Appendix B: Messages.....	76
Appendix C: Map Datums	78
Appendix D: Loran TD	80
Appendix E: Specifications/Unit Care	82
Appendix F: Installing/Removing Data Cards	83
Appendix G: Regulatory Information	84
Appendix G: Software License Agreement	85
Appendix G: Limited Warranty	86
Appendix H: Index	87

WARNING: 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 3006C/3010C is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and, therefore, become unsafe.

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

CAUTION: Use the GPSMAP 3006C/3010C at your own risk. To reduce the risk of unsafe operation, carefully review and understand all aspects of this Owner's Manual, and thoroughly practice operation using the simulator mode prior to actual use. When in actual use, carefully compare indications from the GPSMAP 3006C/3010C 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 USER'S RESPONSIBILITY TO USE THIS PRODUCT PRUDENTLY. THIS PRODUCT IS INTENDED TO BE USED ONLY AS A NAVIGATIONAL AID AND MUST NOT BE USED FOR ANY PURPOSE REQUIRING PRECISE MEASUREMENT OF DIRECTION, DISTANCE, LOCATION, OR TOPOGRAPHY.

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 California's Proposition 65. If you have any questions or would like additional information, please refer to our web site at <http://www.garmin.com/prop65>.



Introduction

Packing List & Accessories

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

Standard Package:

- GPSMAP 3006C or 3010C Unit
- GPS 17 GPS Sensor
- Bail Mount and Two Knobs
- Power/NMEA Cable
- Marine A/V Cable
- Owner's Manual
- Installation Manual
- Quick Reference Guide
- Protective Cover
- Flush Mount Kit Hardware
- Grommet for Marine Cable

Optional Accessories for Purchase:

- Marine Infrared (IR) Remote Control
- GDL 30/30A Marine Weather XM Satellite Receiver
- GMS 10 Network Port Expander
- GSD 20 Remote Sounder Module and Transducers
- Second Mounting Station
- Cigarette Lighter Adapter
- Marine Network Cables
- BlueChart Marine Data Cards, MapSource CDs, USB Data Card Programmer, and Data Cards

Using Additional Map Data

The GPSMAP 3006C/3010C 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 3006C/3010C. With optional BlueChart cartography, you can access marine navais, 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.

Installation

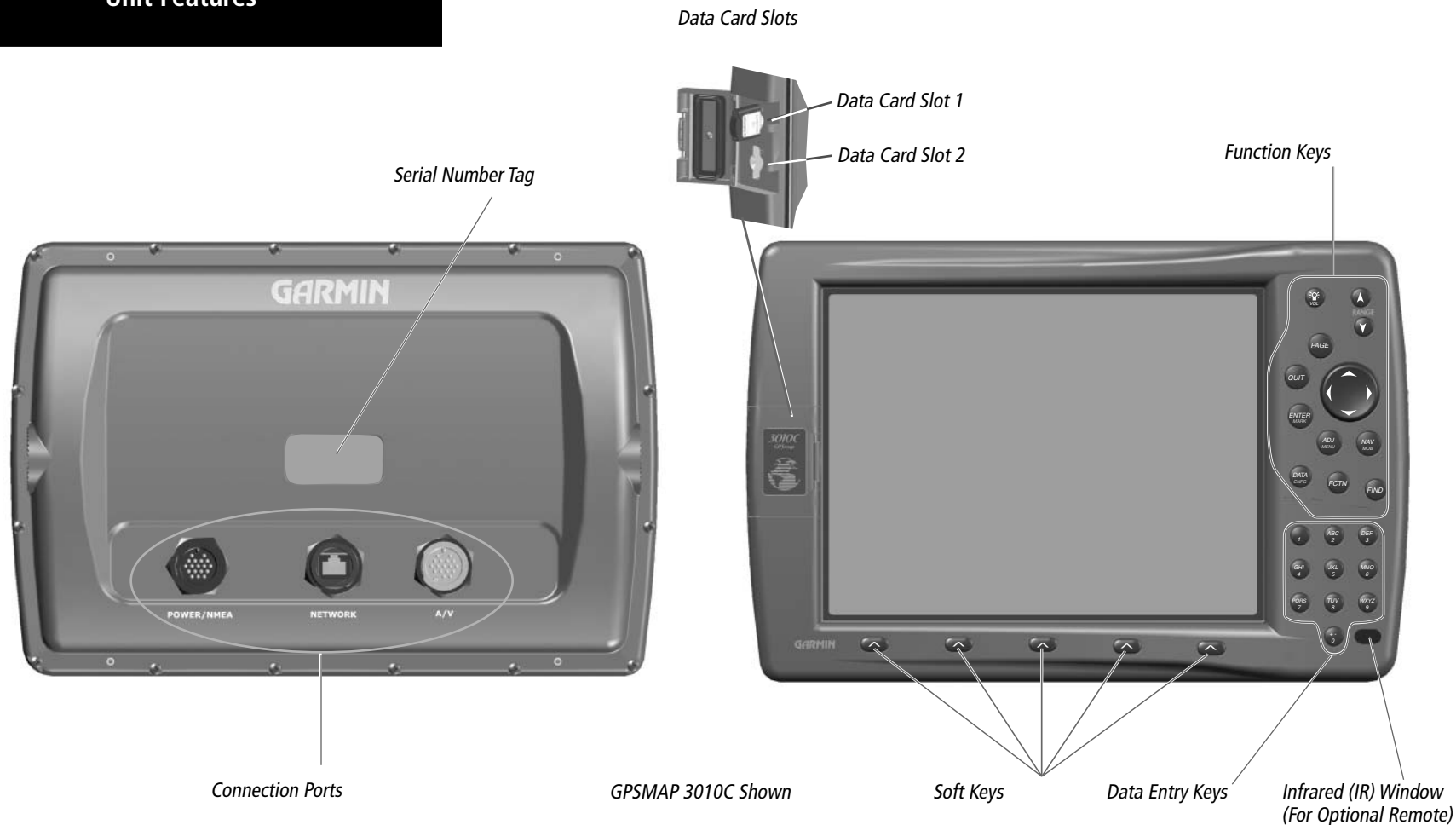
Instructions for installing the GPSMAP 3006C/3010C MFD may be found in the GPSMAP 3006C/3010C & GPS 17 Installation Guide” (p/n 190-00371-02). To complete the installation, you need the appropriate fasteners, tools, and mounts listed in each section. Installation items that are not provided by Garmin should be available at most marine dealers. If you experience difficulty installing the unit, please contact Garmin or an installation professional in your area.

Manual Conventions

- This manual refers to the GPSMAP 3006C and 3010C as “GPSMAP 3006C/3010C,” “unit,” or “MFD (Multi-Function Display)”. It makes no distinction between these terms. “GPSMAP 3006C/3010C” refers to both the GPSMAP 3006C and 3010C models unless specifically stated.
- This manual uses the terms “page,” “screen,” and “window” interchangeably.
- This manual uses the words “button” and “key” interchangeably.
- This manual uses the term “press” when you need to activate the keys on the GPSMAP 3006C and 3010C or on the optional remote control.

Getting Started

Unit Features



Keypad Usage

The **POWER/VOL** Key — turns on/off the unit and adjusts the display illumination. Multiple presses toggle the unit's backlight between maximum, user-set, and minimum brightness levels. The secondary VOL (Volume) adjustment is for future audio expansion.

The **RANGE** Keys — adjusts the range scale to show a larger area with less detail (UP Arrow) or a smaller area with more detail (DOWN Arrow)

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

The **QUIT** Key — returns the display from a submenu page, restores the previous value in a data entry field, or cancels an unintended function.

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

The **ADJ/MENU** Key — shows the available options and features for the current function. Displays the Main Menu when pressed and held for more than one second.

The **NAV/MOB** Key — displays the Go To and Follow navigation menu. Activates the MOB (Man OverBoard) navigation feature when pressed and held for more than one second.

The **DATA/CNFG** Key — toggles the display of a main page with/without function windows and data fields. When pressed and held for more than one second displays the CNFG (Configuration) page, which allows you to customize the current main page.

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

The **FCTN** Key — (Function) key allows you to cycle through function windows. (see page 21)

The **ARROW KEYPAD** — is used to select (highlight) menu options and enter data. It controls the LEFT/RIGHT, UP/DOWN, and diagonal movement of the cursor.



Always press and release a key to perform its primary function. Press, hold for more than one second, then release the ENTER/MARK, ADJ/MENU, NAV/MOB, and DATA/CNFG keys to activate their secondary functions.

Getting Started 3006C/3010C Keys



Getting Started

3006C/3010C Keys



DATA ENTRY
Shortcut Keys

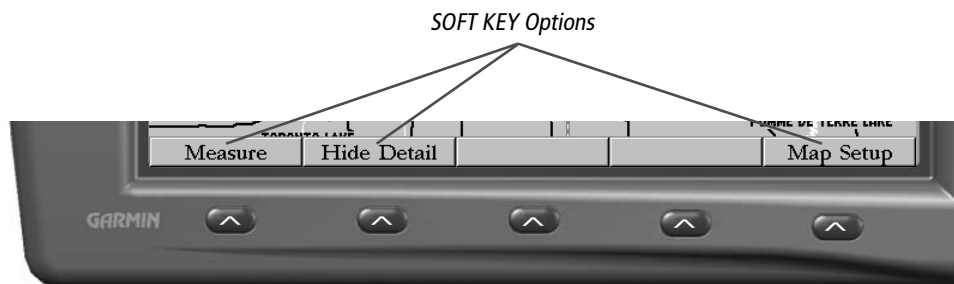
Data Entry/Shortcut Keys

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

Shortcut Keys are used to quickly jump to main pages, or select menu and list options by pressing the corresponding number of the desired selection. For numbers 1-9, press the number to choose the desired selection. For numbers 10 and higher, press the first digit, then press the second digit within one second.

Soft Keys

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



Optional Alphanumeric Remote Control Usage

The GPSMAP 3006C/3010C's optional Marine Remote Control gives you the freedom to operate your MFD from a distance using the remote's keypad. Contact your Garmin dealer or Garmin to purchase the Marine Remote Control.

In order for the remote to operate properly, be sure to point the IR (infrared) window on the remote towards the unobstructed IR window on the lower right corner of the GPSMAP 3006C/3010C.

The remote also has function keys that allow you to quickly enter data and perform operations on the MFD. All the keys on the Remote Control operate in the same manner as the keypad (see pages 9-10) on the GPSMAP 3006C/3010C. The key's primary function appears on the key and the secondary functions (same as keys on the MFD) for the **ADJ/MENU**, **NAV/MOB**, **DATA/CNFG**, and **THUMB STICK (ENTER/MARK)** can be activated by holding the key for more than two seconds (then release).

THUMB STICK — Combines the operations of the **ARROW KEYPAD** and **ENTER/MARK** key. Selects menu options, changes settings, enters data, and confirms entry. Also controls movement of the panning cursor on the Map page. Press IN (**ENTER**) on the **THUMB STICK** to select/activate a highlighted item or begin data entry. Press IN and hold for two seconds to mark a waypoint.

Remote Control Batteries

The remote requires two AAA alkaline batteries. To install the batteries, press down on the battery door clip, then pull the battery door away from the remote. Install the batteries observing the correct polarity (see inside battery compartment). Replace the cover, making sure it is closed all the way.



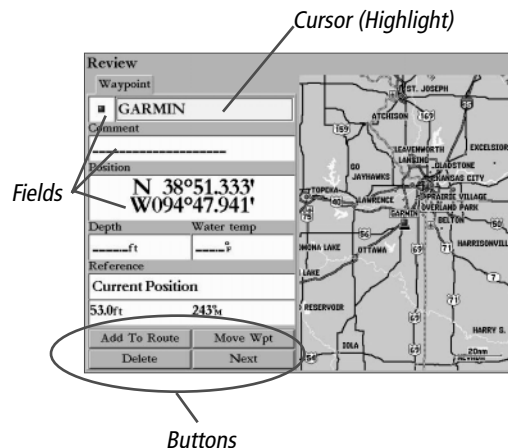
The remote is for use in shaded/enclosed environments. Direct sunlight interferes with infrared operation. This remote is NOT waterproof.

Getting Started Using the Optional Marine Remote

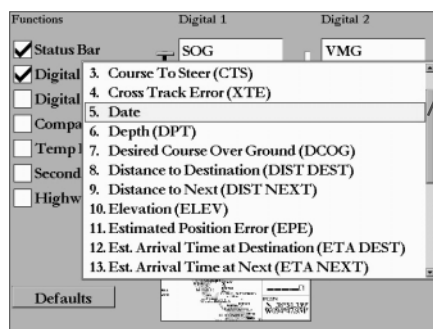


Getting Started

Understanding the Features



Scroll Bar



Understanding the Features

The GPSMAP 3006C/3010C unit's advanced keypad system is designed to allow quick, convenient selection of navigation options and data entry. As you progress through this Owner's Manual, you will often be 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 the key needs to be held down for a period of time to activate a secondary function, the instructions will tell you to do so. The position of the highlight is controlled by the **ARROW KEYPAD**. When a field is selected on the screen, it is highlighted in yellow.

The following features are referred to throughout this manual.

<KEYPAD KEY> - Keypress commands appear in upper case **BOLD**. Press the corresponding key on the unit's keypad. Example **ENTER/MARK**, **PAGE**, **FCTN**, etc.

Cursor – The highlighted area on the screen that can be moved UP/DOWN/LEFT/RIGHT with the **ARROW KEYPAD** to select individual fields. Moving the cursor to a given location allows you to begin data entry or scroll through a list. A yellow highlight indicates the location of the cursor.

Field – The location on a page where data or an option may be entered and displayed. The cursor is placed on a field using the **ARROW KEYPAD** to begin data entry or selection of options.

Button (On-Screen) – Similar to “field.” Use the **ARROW KEYPAD** to highlight a button and press **ENTER** to select the action that corresponds to the button.

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 **ARROW KEYPAD**.

Default – A system selection format built into the unit's memory that is followed unless you change a setting. For example, the default setting for speed readings is nautical miles per hour (knots), but may be changed to kilometers or miles per hour. Once a setting is changed, the new setting is retained until another change is made or a 'Restore Default' menu option is selected.

Powering On/Off the GPSMAP 3006C/3010C

Learning the basic operations, before moving ahead to the features of the GPSMAP 3006C/3010C, is essential. Many times throughout this manual you will be prompted to press a key. When instructed, press and then release the key. If the key needs to be held down, the instructions will prompt you.

Turning the GPSMAP 3006C/3010C ON:

1. Hold the **POWER** (⏻) key until the unit powers on, then release.

As the unit powers on, an Introduction page is displayed. After reading the Introduction page, press **ENTER** when “I Agree” highlights in yellow to display the Map Page.

Adjusting the Backlight

The Backlight can be increased in steps to produce the right lighting for the situation. You may cycle through three light settings; Highest, Selectable, and Lowest.

Adjusting the Backlight's 'Selectable' level:

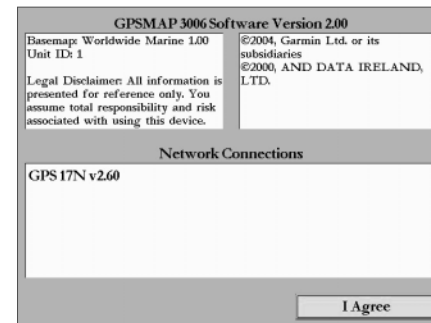
1. Press the **POWER** (⏻) key to activate the Backlight Adjustment Window.
2. To increase the selectable backlighting level, press the **ARROW KEYPAD** up.
3. To decrease the selectable backlighting level, press the **ARROW KEYPAD** down.



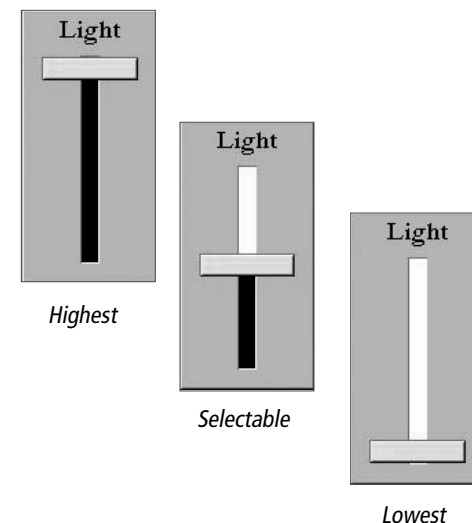
TIP: After the Backlight Adjustment Window is activated, pressing the **POWER** key repeatedly cycles through the backlight's three settings: Highest, Selectable, and Lowest.

Getting Started

Power and Backlighting



Welcome Screen



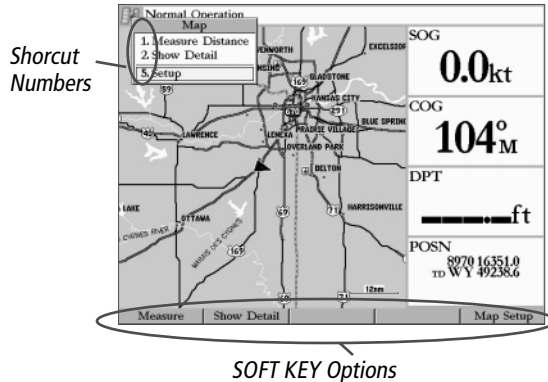
Getting Started

Selecting Options

Map	Map
1. Measure Distance	1. Measure Distance
2. Show Detail	2. Show Detail
5. Setup	5. Setup

Options Menu with highlighted option.

Use the **ARROW KEYPAD** to highlight the desired option. Press **ENTER/MARK** to activate.



How To Select Options

You can select and activate options and enter data to customize the GPSMAP 3006C/3010C to fit your requirements. You can use the **ENTER** and **DATA ENTRY** keys, and the **ARROW KEYPAD** to select options, enter names and numbers in data fields, activate your selections, or quickly select an option.

To select and activate an option using the **ENTER** key and **ARROW KEYPAD**:

1. Press **ADJ/MENU** to display the options menu for the selected function (see page 21). The options menu displays a list of optional features which are specific for that particular function. Selecting any feature on the list of options requires movement of the cursor, which is called "highlighting", selecting or choosing an item in a list or a field (box) on a page.
2. Use the **ARROW KEYPAD** to move the cursor (highlight) up and down a list or up, down, and sideways on menus.
3. Once you have moved to the desired selection, press **ENTER** to either activate the feature or **RIGHT** on the **ARROW KEYPAD** to display a sub-menu or list if more feature options exist. Repeat this process to select an option from the list or press the **QUIT** key to return to the previous setting.

The **QUIT** key moves backwards through these steps back to the main page you started on.

To select and activate an option button:

When moving about a page with option buttons, like the waypoint 'Review' page, you observe functions such as 'Add To Route', 'Move Wpt', 'Delete' and 'OK'. To activate the option, highlight the desired button and press **ENTER**.

To select and activate an option using **DATA ENTRY** shortcut keys:

1. Press **ADJ/MENU** to display the options menu for the current page or selected function (see page 21). The options menu displays a list of optional features which are specific for that particular function.
2. To quickly select any feature on the list of options, press the corresponding **DATA ENTRY** number key. For numbers 10 and higher, press the first digit, then press the second digit within one second. Shortcut keys always use the same corresponding number for easy operation.

To select and activate an option using **SOFT KEYS**:

Press the **SOFT KEY** that is below the desired option.

How To Enter Data

Naming a waypoint or placing any sort of data that has not been predefined requires the use of the **ARROW KEYPAD**, **ENTER**, and/or **DATA ENTRY** keys.

To enter a name or number in a data field:

1. Once you have accessed a page with programmable data fields (e.g. 'Waypoint Edit') you can use the **ARROW KEYPAD** to move the cursor (Highlight) to fields on the page. Use the UP/DOWN arrows to move up or down and the LEFT/RIGHT arrows to move sideways.
2. Pressing **ENTER** with the field highlighted begins the process for entering data in the form of alphanumeric characters.
3. Each **DATA ENTRY** key has multiple characters assigned to it. Pressing the key one time selects the first character, twice selects the second character, three times the third character, and four times selects the number assigned to the key. The only **DATA ENTRY** key that does not have at least four characters is the "+, -, 0" key.

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

or

Use the **ARROW KEYPAD** UP/DOWN arrows to cycle through numbers 0 to 9, plus/minus symbols, blank space, and the alphabet. Pressing and releasing the keypad moves you character by character through the list. Pressing and holding the keypad moves you rapidly through the list.

4. Use the **ARROW KEYPAD** LEFT/RIGHT arrows to manually move to the next character on the line or backwards to edit characters. Press LEFT on the **ARROW KEYPAD** from the first character position to clear the entire field. If there are more than two lines of data, keep pressing to the RIGHT to drop down to the next line.
5. When data entry is completed press **ENTER** to accept data, then move to the next programmable field. Not all data fields are programmable, such as the date and time. When moving about a page with these fields, the cursor skips over them.

Getting Started

Entering Data

Review	
Waypoint	
DOCK	
Comment	
Position	
N 38°51.333'	
W 094°47.941'	
Depth	Water temp
ft	°F
Reference	
Current Position	
69.0ft	241M
Add To Route	Move Wpt
Delete	Next

↑↓
Pressing UP or DOWN
on the ARROW KEYPAD
or using the DATA
ENTRY keys changes
numbers and letters.

Review	
Waypoint	
DOCK	
Comment	
Position	
N 38°51.333'	
W 094°47.941'	
Depth	Water temp
ft	°F
Reference	
Current Position	
51.2ft	248M
Add To Route	Move Wpt
Delete	Next

←→
Pressing LEFT or RIGHT
on the ARROW KEYPAD
moves the cursor along
the line or to the next
line.

Getting Started

Initializing the Receiver

Initializing the Receiver

The first time you power up your new GPSMAP 3006C/3010C MFD and GPS 17 receiver, the receiver must be given an opportunity to collect satellite data and establish its present position. To ensure proper initialization, the GPS 17 is shipped from the factory in AutoLocate mode, which allows the receiver to “find itself” anywhere in the world. The MFD usually provides a position fix within a few minutes.

Before you initialize, make sure the GPSMAP 3006C/3010C unit and GPS 17 antenna have been correctly installed on your vessel according to the instructions in the Installation Guide. The antenna needs a clear and unobstructed view of the sky to receive satellite signals.

To turn the GPSMAP 3006C/3010C on:

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

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. Once the search is complete, the “I Agree” button highlights in yellow. After reading the Introduction, press the **ENTER** key if you agree.

Next, you see the first of the Main Pages (see page 18), which is the Map Page. The GPSMAP 3006C/3010C now begins searching for the GPS satellites. The first time that the unit acquires satellites take several minutes. Afterwards, acquisition times are quicker during normal use. The GPS Status icon on the left side of the Status Bar (see also page 17) shows the progress of the satellite acquisition process. The GPS icon status colors are:

Red— Acquiring Satellites/ Lost Satellite Reception

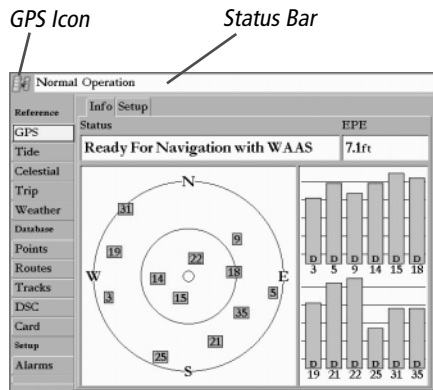
Orange— Ready For Navigation/ Ready For Navigation with WAAS

Gray— Lost GPS connection. (Check GPS antenna wiring connections.)

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

To view the GPS tab information:

1. Press and hold **ADJ/MENU** for two seconds, then release. The Main Menu appears.
2. If not already highlighted, use the **ARROW KEYPAD** to highlight the ‘GPS’ tab.



GPS Tab

Getting Started

Initializing the Receiver/ Status Bar

When viewing the GPS Info, 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.

Once 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 3006C/3010C is now ready for use! Press **QUIT** to return to the Map Page.

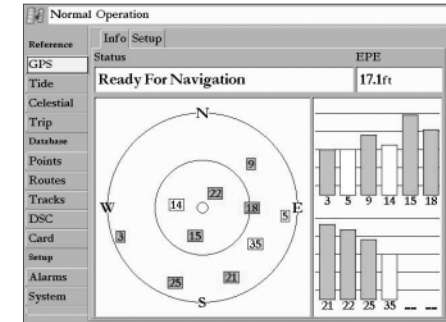
For more detailed information on the GPS tab, its related options, WAAS, and GPS, see pages 56-57.

Status Bar

At the top of each page, a 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 in the Status Bar. Please refer to the documentation for the additional devices for specific information for that device's icon.

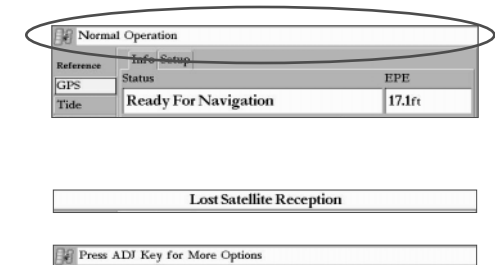
When navigating lists of similar items, such as waypoints, the Status Bar displays helpful tips if additional **ADJ/MENU** key options are available.

Alarm alerts also appear in this area. To acknowledge an alarm, press the **QUIT** key. If an alarm condition persists, it displays in the Status Bar area until the alarm condition no longer exists. More on alarms may be found on page 68.



GPS Tab

Status Bar



Status Bar Messages
Press QUIT to acknowledge.

Getting Started

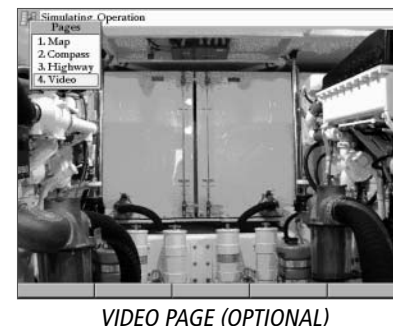
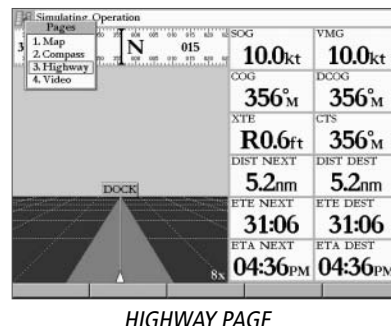
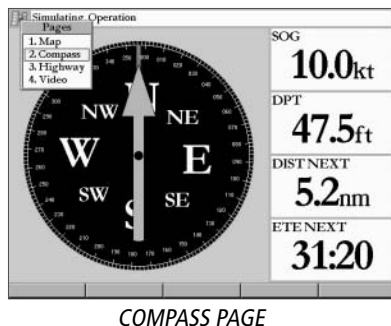
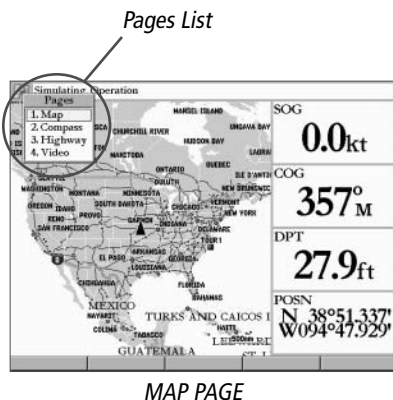
Main Pages

Main Pages

Main Pages are the primary screens which contain navigation and other helpful information to assist you. There are three factory default pages: the Map Page, Compass Page, and Highway Page. One optional page, the Video Page, appears if you are inputting a video signal (see page 35). When the unit is powered on, the first Main (Primary) Page displayed is the Map Page. As you add optional hardware to the MFD or Garmin Marine Network, additional Main Pages, Functions (pg. 21), or Adjustments (pg. 21) may appear automatically. For specific information on additional Main Page operations, refer to the documentation that comes with the optional hardware. When the **PAGE** key is pressed, the Pages list displays the available Main Pages. You may cycle through the Main Pages in order, or jump to a specific page.

To cycle through the Main Pages in order:

1. Press the **PAGE** key. Each time the **PAGE** key is pressed the GPSMAP 3006C/3010C displays the next Main Page and highlights (in yellow) the name on the Pages List.
2. Press **ENTER** to accept the current page or wait and the window automatically disappears after a few seconds.



To jump to a specific Main Page:

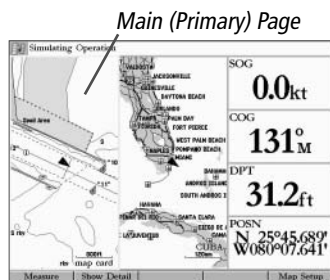
1. Press the **PAGE** key. The Pages List displays the available Main Pages along with their corresponding short-cut number. The current Main Page is highlighted in yellow.
2. Press the **DATA ENTRY** number key of the Main Page you wish to view or use the **ARROW KEYPAD** to highlight the desired page and press **ENTER**.

Configuring Main Pages

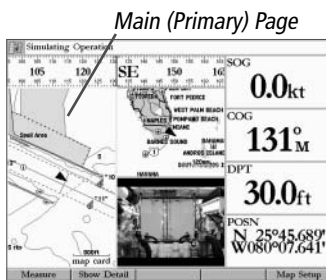
Each of the Main Pages may be customized to fit your navigational needs. You may modify digital data fields and add additional secondary Functions to each of the Main (Primary) Pages. Factory default and some optional hardware Main Pages may be added as additional Function windows or “Functions” to any of the Main Pages. As you add optional hardware to the MFD or Garmin Marine Network, additional Function choices may appear automatically. You may also display other Functions such as a Compass tape, Temperature Log (if inputting Garmin or NMEA Sonar data. See page 72), or a Second Map (Map Page only). Digital data fields (Digital 1 and Digital 2) may be changed in size and type of data that is displayed in each data field. As you add/remove Functions and data fields, a preview window shows the layout.

To add/remove Functions to a Main Page:

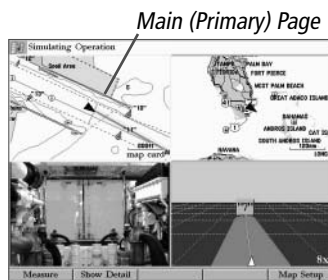
1. Press and hold the **DATA/CNFG** key for two seconds. The Configuration page appears.
2. Using the **ARROW KEYPAD**, highlight the desired Function to add/remove and press **ENTER**. Only Functions with checkmarks in the box to the left of the name display on the Main Page. Up to three secondary Function windows may be displayed on a Main (Primary) Page. Function selections gray out when no more can be added. The Main (Primary) Page you are adding Functions to always displays either on the left side (2-3 Function windows) or in the upper left (4 Function windows).
3. When finished, press **QUIT** to return to the Primary (Main) Page.



Map Page with Second Map and Digital 1



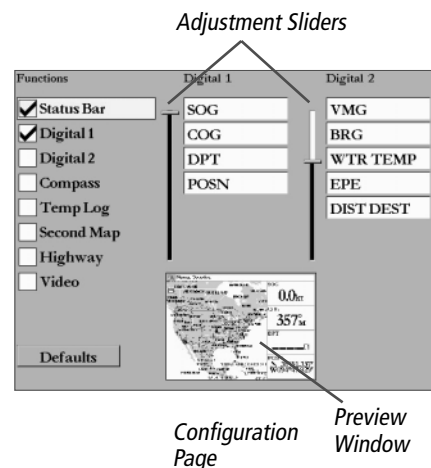
Map Page with Second Map, Compass, Video, and Digital 1



Map Page with Second Map, Video, and Highway (No Digital Data)

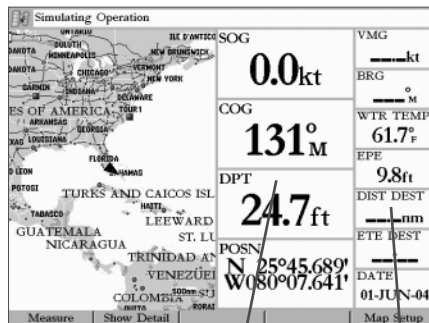
Getting Started

Configuring Main Pages



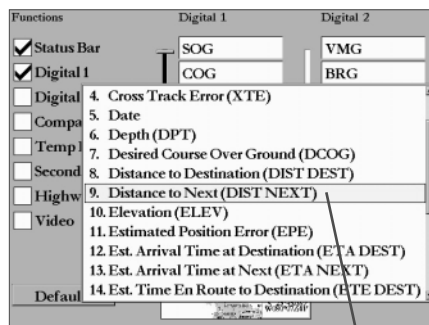
Getting Started

Configuring Main Pages



Digital 1 with large data fields.

Digital 2 with small data fields.



Choose the type of information you wish to display in a certain data field.

To change the size of the Digital data fields:

1. Press and hold the **DATA/CNFG** key for two seconds. The Configuration window appears.
2. Using the **ARROW KEYPAD**, highlight the Digital 1 or Digital 2 adjustment sliders and press **ENTER**.
3. Press UP on the **ARROW KEYPAD** to display larger text with fewer data fields. Press DOWN on the **ARROW KEYPAD** 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 display 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.

To change Digital 1 or Digital 2 data fields:

1. Press and hold the **DATA/CNFG** key for two seconds. The Configuration window appears.
2. Using the **ARROW KEYPAD**, highlight the data field you wish to change and press **ENTER**.
3. Move up or down on the list using the **ARROW KEYPAD** to highlight the type of data you wish to display, and press **ENTER** or press the **DATA ENTRY** key(s) for the selection. To exit, press **QUIT**.

Available data field choices are:

- | | |
|---|--|
| 1. Bearing (BRG) | 13. Est. Arrival Time at Next (ETA NEXT) |
| 2. Course Over Ground (COG) | 14. Est. Time En Route to Destination (ETE DEST) |
| 3. Course To Steer (CTS) | 15. Est. Time En Route to Next (ETE Next) |
| 4. Cross Track Error (XTE) | 16. Position (POSN) |
| 5. Date | 17. Speed Over Ground (SOG) |
| 6. Depth (DPT)* | 18. Speed Through Water (STW)* |
| 7. Desired Course Over Ground (DCOG) | 19. Time of Day (TIME) |
| 8. Distance to Destination (DIST DEST) | 20. Turn |
| 9. Distance to Next (DIST NEXT) | 21. Velocity Made Good (VMG) |
| 10. Elevation (ELEV) | 22. Voltage (VOLT) |
| 11. Estimated Position Error (EPE) | 23. Water Temperature (WTR TEMP)* |
| 12. Est. Arrival Time at Destination (ETA DEST) | |

*Requires input of Garmin or NMEA Sonar Data to display.

To restore the factory default configuration:

1. Press and hold the **DATA/CNFG** key for two seconds. The Configuration window appears.
2. Using the **ARROW KEYPAD**, highlight the 'Defaults' button and press **ENTER**.

Using Function Windows

Factory default or optional hardware Main Pages may be added as additional Function windows or “Functions” to any of the Main Pages. (See pg. 19 for adding Functions.) Once you have configured a Main Page, you can easily cycle through the available Function by pressing the **FCTN** (Function) key. A yellow box highlights around the “active” Function. Each time you press the **FCTN** key, the highlight moves in a clockwise motion (when three or more Functions are displayed).

To cycle through Main Page Functions:

1. Press the **FCTN** key. The “Functions” List appears and the next Function on the list highlights.
2. Each time you press the **FCTN** key, the next Function highlights. Press **ENTER** when the desired Function is highlighted. Or, from the Functions List, press the **DATA ENTRY** shortcut key for the desired Function. Functions that are not currently available appear in gray and may not be selected.

Function Adjustments

Each active Function (except the Compass Tape) 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, Adjustments Menu choices may appear automatically. For specific instructions on adjustments and features for the highlighted Function, please refer to the specific section (or manual) for that Main Page.

To display the active Function’s adjustments:

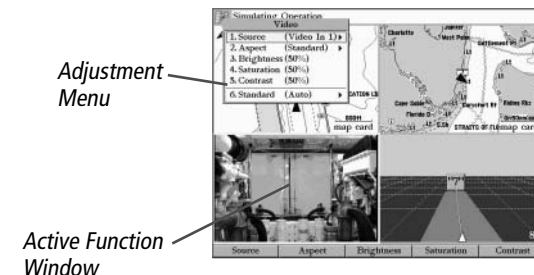
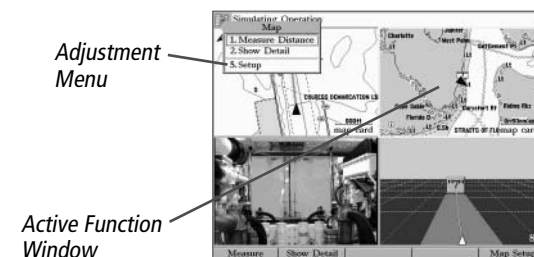
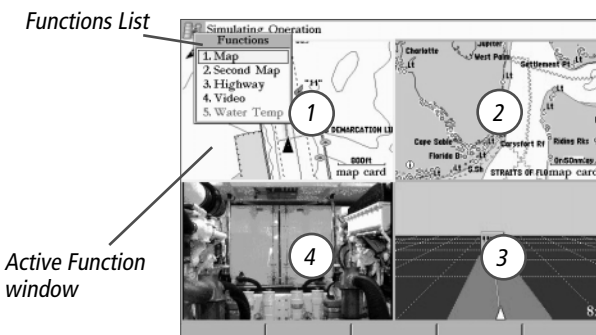
1. Press the **ADJ** key to display the available options window. The Adjustment Menu appears for the highlighted or active Function.
2. Press the **DATA ENTRY** shortcut key for an option or highlight it with the **ARROW KEYPAD** and press **ENTER** to select the option.

DATA Key

The **DATA** key allows you to display the primary view of a Main Page, in a full screen mode, without Functions, Status Bar, or Digital Data fields. Press the **DATA** key to display a full screen Main Page. Press the **DATA** key again to return to the previous view.

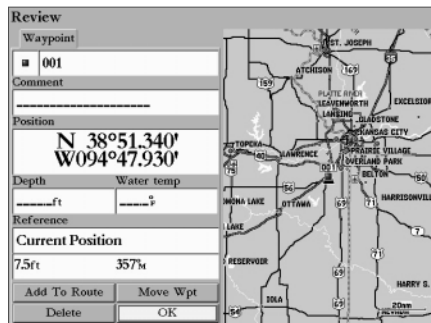
Getting Started

Using Functions/ DATA Key

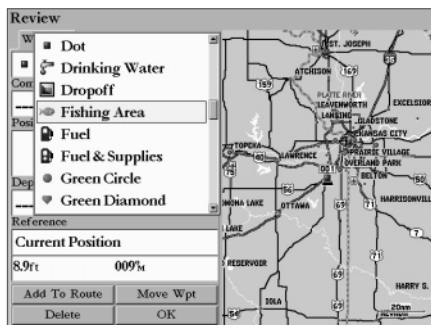


Getting Started

Creating Waypoints



Waypoint Review Page



You may choose from a list of useful symbols.

Creating Waypoints

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

Creating, or “Marking” a waypoint in the MFD is really very easy. The unit has to be turned on and receiving at least three satellite signals to mark a waypoint.

Marking your present position as a Waypoint:

Press and hold the **ENTER/MARK** key for two seconds until the waypoint Review page is displayed.

When you hold the **ENTER/MARK** key, the GPSMAP 3006C/3010C captures its current location and displays the Review page. The MFD assigns a square as the default symbol and a number as the default name. The ‘OK’ button is now highlighted. Pressing **ENTER** stores the new waypoint using the default settings for the symbol and name, or you may change the symbol.

Changing the symbol:

1. Using the **ARROW KEYPAD**, highlight the symbol field, then press **ENTER**. This displays an alphabetical list showing all of the available symbols.
2. Using the **ARROW KEYPAD**, highlight a symbol and then press **ENTER**.

We will enter a new waypoint name using the **DATA ENTRY** keys. When entering data using the **DATA ENTRY** keys, press the key repeatedly until the correct character is selected, then pause briefly or press the next letter/number from a different key. The unit automatically moves the cursor to the next placeholder. See page 15 for more information on entering data.

Changing the name:

1. Using the **ARROW KEYPAD**, highlight the Name field and then press **ENTER**. This activates the field with the highlight on the first placeholder.
2. Press the **ARROW KEYPAD** to the left one time to clear the field.

Getting Started

Creating Waypoints

- For example if you wished to enter "PRACTICE 1" as a waypoint name. Press the **DATA ENTRY** key labeled "P, Q, R, S, 7" one time to enter the letter "P". (If you are entering a letter/number from the same key, pause briefly and the unit moves to the next placeholder automatically. Otherwise, press the next letter/number from a different key.)
- Press the same key three times to set the letter "R". Continue entering the name until "PRACTICE" is spelled.
- To move the cursor to the right one space, press the **ARROW KEYPAD** to the right one time.
- Finish the waypoint name by selecting the number "1".
- Press **ENTER** to accept the new name.

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

Entering a Comment:

- Highlight the 'Comment' field and press **ENTER**.
- Using the **ARROW KEYPAD** and **DATA ENTRY** keys, enter "FIRST WAYPOINT".
- Press **ENTER** to accept the comment.

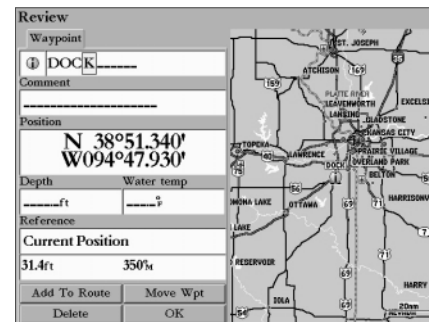
Now that you have finished modifying the waypoint you will need to save it to the Waypoint List. See page 41 for more information on waypoints and waypoint options.

To Save the Waypoint:

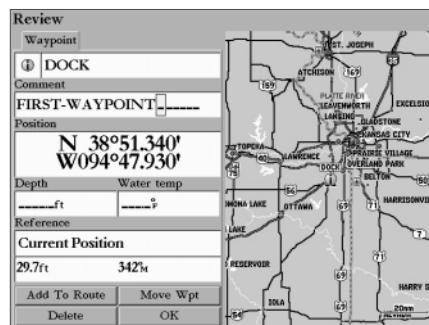
- Using the **ARROW KEYPAD**, highlight the 'OK' button at the bottom of the Review page.
- Press **ENTER** to save the waypoint.

Data Entry Tips:

- When using the **ARROW KEYPAD**, press and hold the key if you want the unit to scroll through the alpha-numeric list quickly.
- When using the **DATA ENTRY** keys, rapidly press the key the appropriate number of times for the character that you want to display. The number is always last. The unit automatically advances to the next character position.



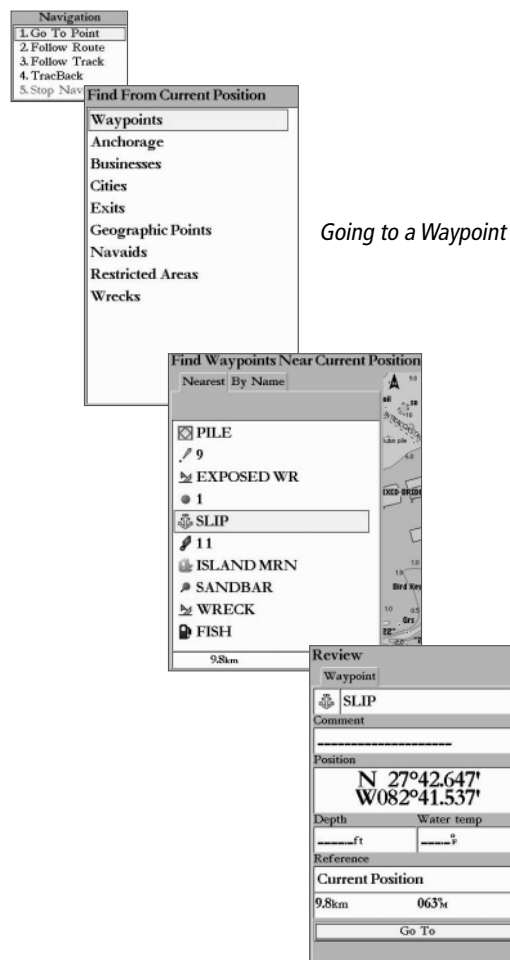
Use the ARROW KEYPAD or DATA ENTRY keys to enter a waypoint name.



Use the ARROW KEYPAD or DATA ENTRY keys to enter a Comment.

Getting Started

Basic Navigation



Navigating to a Waypoint

GPS is all about marking positions as waypoints and navigating to them using the receiver's steering guidance and map displays. We've already seen how to use the **ENTER/MARK** key to store our present position, so it's time to move on to the fun part—going to a destination.

The **NAV/MOB** key is the primary tool used to select a destination Waypoint, TracBack (pg. 45), or a Route (pg. 49) to navigate. The **NAV** key can be used in two primary ways:

- Pressing **NAV** once displays a list of options from which you can select 'Go To Point', 'Follow Route', 'Follow Track', 'TracBack', or 'Stop Navigation'.
- Highlighting an on-screen waypoint or map item as a destination directly from the Map Page and pressing **NAV** allows you to graphically select points to "Go To".

When you begin navigation to a waypoint, the GPS sets a straight-line course to that point. The unit draws a Course Line on the display between the current GPS location and the destination waypoint. You may use the Map, Compass, or Highway Main Pages (or configure any of the other Main Pages) for navigation. For this exercise, let's use the Compass Page. You may use the "Practice 1" waypoint you created on the previous page or any other waypoint you have created.

Going to a waypoint:

1. Press the **NAV** key.
2. Highlight 'Go To Point' and press **ENTER** (or press the **DATA ENTRY** shortcut number).
3. Highlight 'Waypoints' and press **ENTER**. This displays the 'Find Waypoints' window. From this window you can select waypoints by "Nearest" or "By Name". Select the 'Nearest' tab using the **ARROW KEYPAD**.
4. Press the **ARROW KEYPAD** UP or DOWN to scroll through the list until the waypoint you wish to navigate to is highlighted. Press **ENTER** to display the waypoint Review page.
5. With the 'Go To' button highlighted, press **ENTER** to begin navigation.

Press the **PAGE** key and select the Compass Page.

Using the Compass Page

Located on the Compass Page are the Bearing Pointer, and a Compass Ring. For a GPS 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 that 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 the Speed. Also shown are the distance to your waypoint (DIST NEXT) and estimated time en route (ETE NEXT). The distance and en route time decreases as you near your destination.

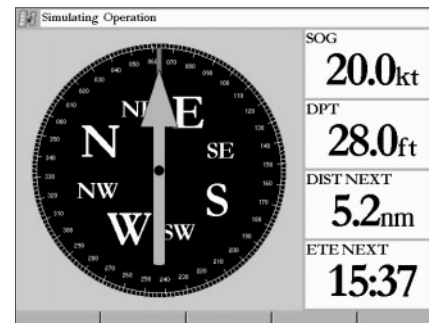
To stop Going To a point:

1. Press the **NAV** key.
2. Highlight 'Stop Navigation' and press **ENTER** (or press the **DATA ENTRY** shortcut number).

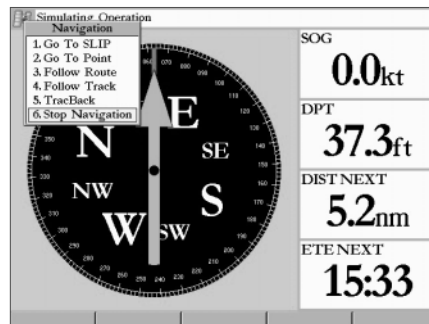
Congratulations! You should now have enough experience to use the basic functions of your GPSMAP 3006C/3010C MFD! For detailed instructions on navigating using the Map, Compass, and Highway Pages, and the rest of the unit's functions, see the Reference section of this manual.

Getting Started

Basic Navigation



Steer until the arrow is pointing to the red vertical line. You are then heading straight towards the point.



Choose 'Stop Navigation' to quit navigating to the point.

Reference

How to Use the Map Page

Map Page

The GPSMAP 3006C/3010C's Map Page provides a comprehensive display of electronic cartography, plotting and navigational data. When using the unit with the optional BlueChart data or MapSource software, the map display shows your boat on a digital chart, complete with geographic names, map items (roads, cities, borders, etc.), nav aids, and a host of other chart features. Additional information on BlueChart data may be found in the "BlueChart User's Guide". The unit also plots your track and displays any routes and waypoints you create. An on-screen cursor lets you pan and scroll to other map areas, determine the distance and bearing to a position, and perform various route and waypoint functions.

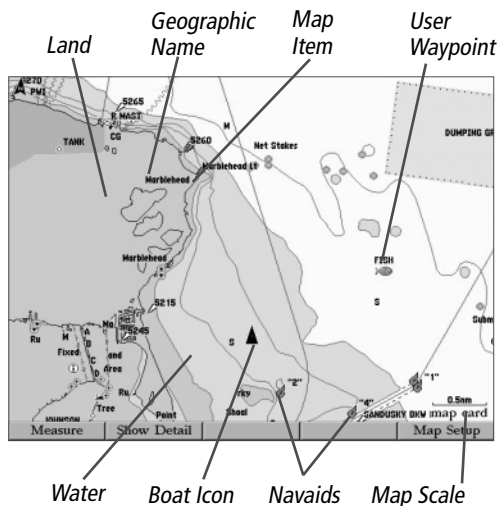
When the cursor is active, an additional data window appears in the upper left of the map to indicate the position, any identifying text, range, and bearing to the cursor or a selected waypoint or map item. The map range scale displays at the bottom right of the map.

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

The GPSMAP 3006C/3010C system (by default) powers up in the position mode, with your vessel centered on the map display.

When the **ARROW KEYPAD** is pressed, the MFD enters cursor mode. In cursor mode:

- The cursor can be moved over the map display using the **ARROW KEYPAD**.
- Whenever the cursor reaches the edge of the display, the map scrolls forward under the cursor. 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 position).
- When the cursor is stationary, a fixed coordinate position appears in the position field. Note that the distance and bearing changes as the boat's position changes.
- Whenever you change the range in cursor mode, the cursor is centered on screen.
- To return to position mode, press the **QUIT** key.



Full screen Map Page shown using optional BlueChart data.



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

Using the Map Cursor

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

To move the cursor:

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

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

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

1. Use the **ARROW KEYPAD** to move the cursor to the desired waypoint or map item (if there are several waypoints grouped closely together, zoom in closer for a better view).
2. When a waypoint or map item is selected, it highlights on screen, with the name and position 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 current Range setting, additional tabs appear on the Review page. Use the **ARROW KEYPAD** to highlight the individual tabs to display the information and additional options. Press **QUIT** to exit.

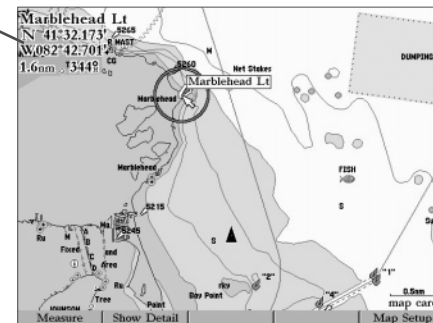
To view additional BlueChart chart notes:

1. Select an on-screen BlueChart map item using the steps above.
2. Use the **ARROW KEYPAD** to highlight the Chart <name> tab. A chart summary appears below the tab.
3. 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 **ARROW KEYPAD**. Press **QUIT** to exit.

Reference

Using the Map Cursor

Map Item name, Cursor Coordinates, Distance, and Bearing

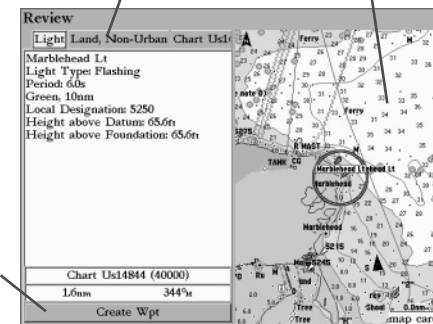


Move the cursor over an item on the map to highlight it.

Additional information tabs.

Map Window

Option button



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

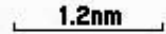
Reference

Selecting Map Ranges



8nm

Using Built-In Basemap



1.2nm

map card

Using BlueChart/MapSource Data



5nm

overzoom

Overzoom, no additional data

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

Press the **QUIT** key.

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

To create a waypoint with the cursor:

1. Use the **ARROW KEYPAD** to move the cursor to the desired map position.
2. Press the **ENTER/MARK** key and the 'Review' window appears. If the cursor is on a map item, a new window appears with details about the item when **ENTER/MARK** is pressed. Press **ENTER/MARK** again on the highlighted 'Create Wpt' option button.
3. Highlight 'OK' and press **ENTER** to confirm the new waypoint using the default three-digit name and symbol. To change any of the available data fields, see page 14.

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 **RANGE UP** Arrow and **DOWN** Arrow keys, with the current scale displayed at the bottom right of the Map window. The scale value represents the distance from one end of the scale bar to the other.

To select a map range:

Press the **RANGE UP** Arrow to zoom out and the **RANGE DOWN** Arrow to zoom in.

The GPSMAP 3006C/3010C'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 3006C/3010C displays cartography as long as there is chart information available for the range you've selected. Map coverage conforms to the following conditions:

- When the selected zoom range is covered by either the internal database, BlueChart, or MapSource data, cartography is displayed.
- When the selected zoom range is covered by both the internal database and BlueChart/MapSource data, cartography is displayed 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.

Map Page Options

The Map Page provides access to functions and features relating to the Map Function window using the Adjustment (**ADJ**) and/or **SOFT KEY** options.

The available Adjustment (**ADJ**)/**SOFT KEY** options are: Measure Distance, Hide/Show Detail, and Setup. As you add optional hardware to the MFD or Garmin Marine Network, Adjustments Menu choices may appear automatically. See page 14 for instructions on selecting Adjustments. You may also customize the Map Page to show other Functions (pg. 19) and different sizes/types of Digital Data (pg. 20). Followings are details on using each of these options.

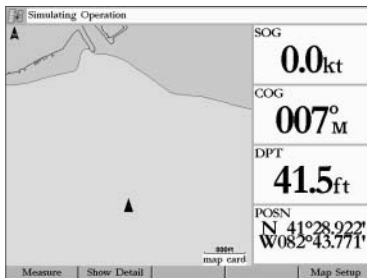
• **Measure Distance** — allows you to measure the bearing and distance between any two points on the map display.

To measure the BRG/DIS between two points:

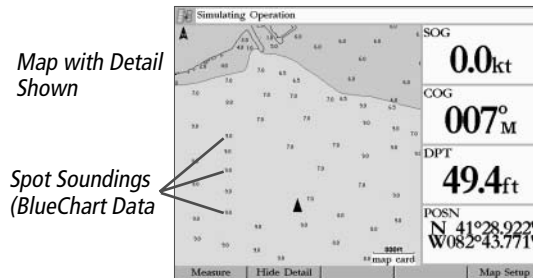
1. Select 'Measure Distance' or 'Measure'. An on-screen pointer appears on the map display at your present position with a blue thumbtack symbol to show the "from" reference point.
2. To change the reference point (the point that you want to measure from), move the cursor to the desired point and press **ENTER**. The blue thumbtack symbol now appears at that point.
3. Move the cursor to the point that you want to measure "to". The bearing and distance from the reference point and cursor coordinates are displayed in the upper left of the Map display. Press the **QUIT** key 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 may set one map to show detail and one map to hide detail.

Map with Detail
hidden



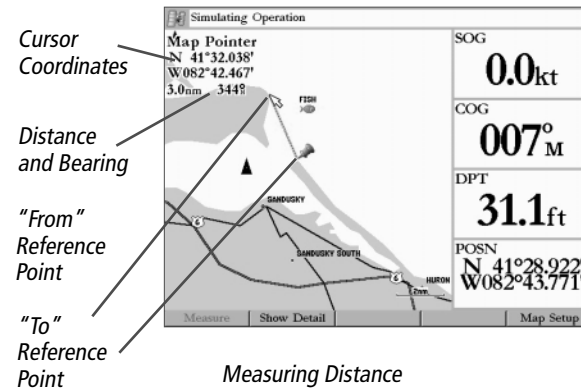
Map with Detail
Shown



Spot Soundings
(BlueChart Data)

Reference

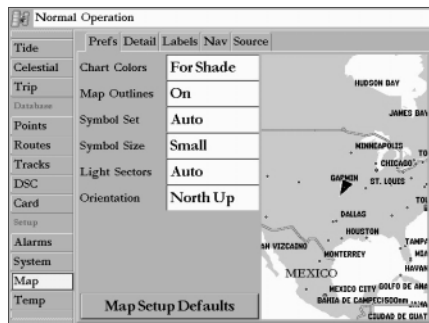
Map Page Options



Measuring Distance
between two points

Reference

Map Page Options



Main Menu—Map Configuration Tab

• **Setup (Map Setup)** — allows you to configure the map display to your preferences, including map detail, map orientation, automatic zoom, and various map items and points. When you choose the Map Setup option, the vertical list of Main Menu tabs (see pg. 55) displays, with the 'Map' tab already selected. The Setup options are arranged in a horizontal, easy to use 'submenu tab' format, making it easier to organize the various settings for ease of use. Changes made from the Map Setup affects all Maps. The following table lists the submenu tabs and the settings available under each tab:

Prefs	Chart Colors, Map Outlines, Symbol Set, Symbol Size, Light Sectors, Orientation
Detail	Chart, Waypoints, Active Route, Tide Stations, Services, Saved Tracks, Track Log, Spot Soundings, Lat/Lon Grid
Labels	Chart, Waypoints, Active Route, Tide Stations, Services, Spot Soundings, Lat/Lon Grid
Nav	AutoZoom, Accuracy Circle, Bearing Line, Course Line, Heading Line
Source	Basemap, Card Maps, Advanced Setup

To change a Setup feature:

1. Select the 'Setup' Adjustment or press the 'Map Setup' **SOFT KEY**.
2. Move LEFT or RIGHT on the **ARROW KEYPAD** to highlight the desired submenu tab, then UP or DOWN on the **ARROW KEYPAD** to highlight the setting you want to change and press **ENTER**.
3. Move UP or DOWN on the **ARROW KEYPAD** to highlight to the desired setting and press **ENTER** or press the associated **DATA ENTRY** shortcut key. To exit, press **QUIT**.

Prefs Tab

Chart Colors— For Shade/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 may be used with either mode.

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

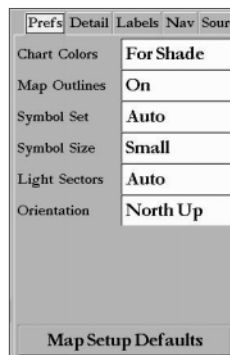
Symbol Set— Auto, Garmin, NOAA, International: controls the desired navaid symbol set.

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.



Prefs Tab

International - All maps are drawn using a symbol set similar to the IALA symbol set.

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

Light Sectors— Off, Auto, On: controls the drawing light sectors on the map. Indicate the actual color of each sector using the color of the light.

Orientation— North Up— fixes the top of the map display to a north heading; Track Up— fixes the top of the map display to the current track heading and centers your position on the lower portion of the screen. Set to 'All Ranges' for constant Track Up. The numeric value is the range the unit switches to North Up when zooming out.; Course Up— fixes the map so the direction of navigation is always "up" and turns the navigation leg line vertical on the screen.

- Map Setup Defaults— restores settings back to factory defaults for all tabs. Highlight the 'Map Setup Defaults' button and press **ENTER** to restore original settings.

Detail Tab

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

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

Labels Tab

Chart, Waypoints, Active Route, Tide Stations, Services, Spot Soundings, Lat/Lon Grid— None, Small, Medium, and Large: controls the screen size of the text. Lat/Lon Grid is Medium only.

Nav Tab—

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

Accuracy Circle— On/Off: toggles the circle "On" and "Off". The circle represents the approximate accuracy of the unit based on when EPE is available (Estimated Position Error) and map data quality. Your position is within the circle.

Prefs	Detail	Labels	Nav	Sour
Chart	Medium			
Waypoints	Medium			
Active Route	Medium			
Tide Stations	None			
Services	None			
Spot Soundings	Small			
Lat/Lon Grid	Medium			

Detail Tab

Prefs	Detail	Labels	Nav	Sour
Chart	Medium			
Waypoints	Medium			
Active Route	Medium			
Tide Stations	None			
Services	None			
Spot Soundings	Small			
Lat/Lon Grid	Medium			

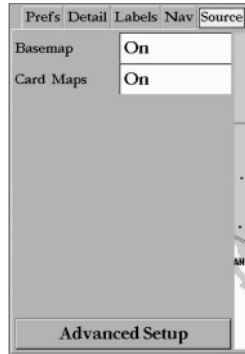
Labels Tab

Prefs	Detail	Labels	Nav	Sour
AutoZoom			Off	
Accuracy Circle			On	
Bearing Line			Off	
Course Line			Auto	
Heading Line			Off	

Nav Tab

Reference

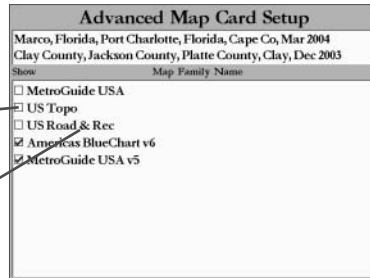
Map Page Options



Source Tab

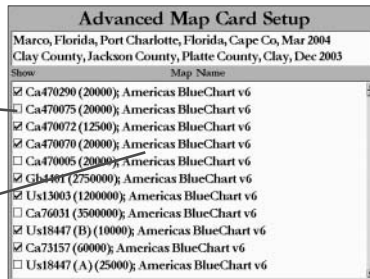
Checkbox

Family Names



Checkbox

Individual Maps



Bearing Line— Off, All Ranges, Auto, <30 ft. to <800 mi.- sets the maximum scale at which the feature should appear on the screen: toggles the red/yellow line which continually points to the current navigation point.

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

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

Source Tab

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

Card Maps— On/Off: 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 may be deselected if you do not wish to display the data on the Map Page.

To display the Advanced Map Card Setup:

1. Highlight the 'Advanced Setup' option button and press **ENTER**.
2. Use the **ARROW KEYPAD** to scroll through the list of map families.
3. To select/deselect a map family, highlight the check box to the left of the name and press **ENTER** to select/deselect the map family. The map is selected and is displayed on the Map Page when an "✓" appears in the box adjacent to that map.
4. To display detailed information/notes for each area or to turn individual maps in the family on/off, highlight the family name and press **ENTER**. To view the Notes/Chart Info for that map area, highlight the map name and press **ENTER**. Select the 'Notes' or 'Chart Info' button. To scroll through the Notes, highlight the Notes fields, press **ENTER** and use the **ARROW KEYPAD** to scroll UP, DOWN, LEFT and RIGHT. Press **QUIT** to exit.

Compass Page

The GPSMAP 3006C/3010C features two different navigation pages: Compass and Highway. Whenever a **NAV** goto, Follow Track, TracBack, or Follow Route have been activated, the GPSMAP 3006C/3010C's Compass Page guides you to your destination with digital readouts and a graphic compass display, which includes a bearing pointer.

Located on the Compass Page are the Bearing Pointer and a Compass Ring. For a GPS 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 that 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.

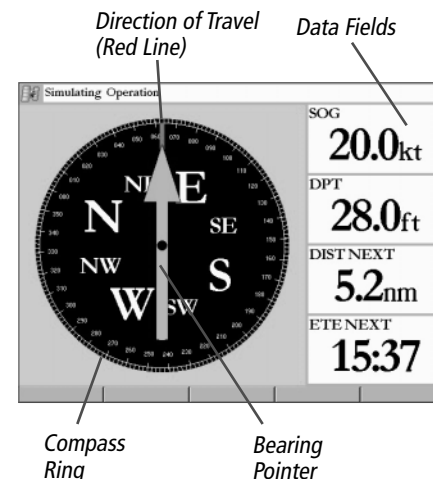
Along the right side of the display are the default data fields, the top field is the Speed. Also shown are the distance to your waypoint (DIST NEXT) and estimated time en route (ETE NEXT). The distance and en route time decrease as you near your destination.

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

You may also customize the Compass Page to show other Functions (pg. 19) and different sizes/types of Digital Data (pg. 20).

Reference

Using the Compass Page



• **Setup** — allows you to select what waypoints and tracks are shown on the Highway display. Use the **ARROW KEYPAD** and **ENTER** key to select/deselect the desired options. Four options are available:

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

Video Page (Optional)

The Video Page only appears if you attach an optional NTSC or PAL composite video source to the MFD. (See Installation Manual.) You may input up to two different video signals to the MFD. Once attached, you may change or alternate between video Source, adjust the Aspect, Brightness, Saturation, and Contrast. You may also adjust which video standard is being input.

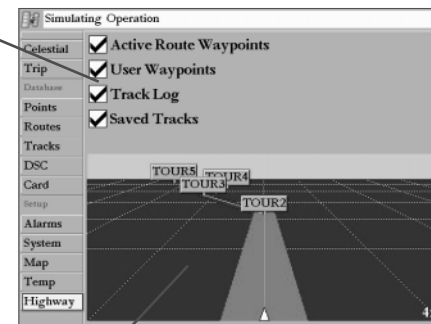
The Video Page provides access to functions and features using the Adjustment (**ADJ**) and/or **SOFT KEY** options. The following options are available:

- **Source**— lets you select input between 'Video In 1' and 'Video In 2'. Choose 'Alternate' to have the unit switch between source at 5, 10, and 30 second intervals.
- **Aspect**— you may 'Stretch' the video input to fill the entire frame or use 'Standard' to show the normal view of the video input.
- **Brightness**— Affects how bright the overall video input appears on the display (0%-100%).
- **Saturation**— Adjusts the intensity of the colors. High saturation produces bright colors, low saturation produces washed out colors.
- **Contrast**— Adjusts the difference between light and dark areas of the video input. The higher the Contrast, the brighter the video appears.
- **Standard (ADJ key only)**— Selects the composite video input Standard. Choose 'Auto' to have the unit automatically select the Standard. Choose 'NTSC' for NTSC (National Television System Committee) or 'PAL' (Phase Alternate Line) for composite video input. If set to 'Auto' and 'Alternate' is selected for 'Source', a switching delay may be experienced as the unit determines the video input. Set to the specific Standard for best results.

Reference

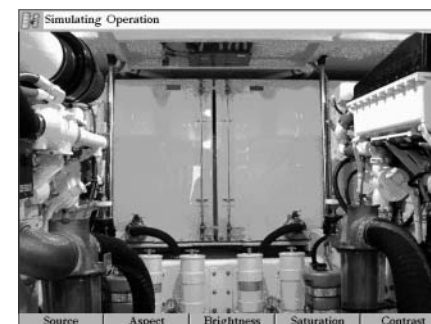
Highway Page Options/ Video Page

*Check or uncheck
the options you wish
to show/hide on the
Highway Page.*

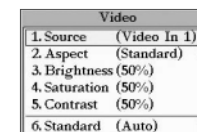


Preview Window

Highway Page Setup



Optional Video Page



Video Page Adjustments

Reference

Creating Waypoints

Review

Waypoint

001

Comment

Position

N 38°51.339'
W 094°47.931'

Depth

3.9ft

Water temp

267°F

Reference

Current Position

3.9ft 267°F

Add To Route Move Wpt

Delete OK

Highlight 'OK' and press ENTER to use the default name and symbol.

See page 22 for an introduction to Waypoints.

Review

Waypoint

001

Comment

Position

N 38°51.339'
W 094°47.931'

Depth

7.7ft

Water temp

307°F

Reference

Current Position

7.7ft 307°F

Add To Route Move Wpt

Delete OK

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

Creating and Using Waypoints

The MFD stores up to 4000 alphanumeric waypoints with a user-defined icon, comment, depth, and water temperature available for each waypoint. (If you are using optional Garmin Sonar hardware, the Depth and Water Temp fields fill in automatically.) Waypoints can be created using three basic methods:

- **ENTER/MARK** key– used primarily for marking your present position, the **ENTER/MARK** key also provides options that allow you to select a map position or map item from the map display.
- Graphically– allows you to define a new waypoint position from the map display using the **ARROW KEYPAD**.
- Text Entry– allows you to enter a new waypoint's coordinates manually (from a chart, etc.).

Marking Your Present Position

The Garmin GPSMAP 3006C/3010C's **ENTER/MARK** key lets you quickly capture your present position (or cursor or map item position) in order to create a new waypoint. You must have a valid position fix to mark your present position. (See page 16.)

To mark your present position:

1. Press and hold the **ENTER/MARK** key until the waypoint 'Review' page appears, then release it. You see a default three-digit name and symbol for the new waypoint.
2. To accept the waypoint with the default name and symbol, press **ENTER** to confirm the highlighted 'OK' prompt.
3. To enter a different name, highlight the name field and press **ENTER**, then use the **ARROW KEYPAD** or **DATA ENTRY** shortcut keys to enter the new letters/numbers and press **ENTER** when done. You may use up to 10 alphanumeric characters for the name.
4. To enter a different symbol, highlight the symbol field to the left of the name and press **ENTER**, then use the **ARROW KEYPAD** and **ENTER** or **DATA ENTRY** shortcut keys to select a new symbol.
5. To enter optional comments, depth, or water temp, highlight the appropriate field and press **ENTER**, then use the **ARROW KEYPAD** or **DATA ENTRY** shortcut keys to enter the data and press **ENTER**.
6. To manually enter a set of coordinates, highlight the coordinates and press **ENTER**, then use the **ARROW KEYPAD** or **DATA ENTRY** shortcut keys to enter the new coordinates and press **ENTER** when done.
7. When done, use the **ARROW KEYPAD** to highlight the 'OK' prompt and press **ENTER** to save the waypoint into memory.

Creating Waypoints Graphically

Waypoints may also be quickly created with the Map Page cursor, which allows you to point to any map position or map feature to create a new waypoint. When you move the cursor over a map item, you see a highlighted description of that item. The GPSMAP 3006C/3010C uses the map item text shown on the cartography as the default name and symbol for the new waypoint.

To create a new waypoint on an open map location:

1. Use the **ARROW KEYPAD** to move the cursor to the desired map position.
2. Press and quickly release the **ENTER/MARK** key to capture the cursor position (press and hold **ENTER/MARK** to mark your present location, not the map cursor's position).
3. The waypoint 'Review' page appears. To accept the waypoint with the default name and symbol, press **ENTER**.
4. To change the name, symbol, position, or add a comment, depth, or water temp, highlight the appropriate field and press **ENTER**. Make your changes and press **ENTER** when done. After entering and confirming your changes, highlight 'OK' and press **ENTER**.

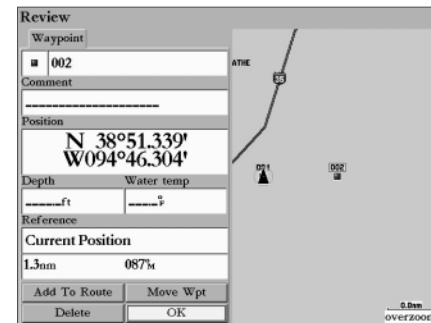
To create a new waypoint from a map feature:

1. Use the **ARROW KEYPAD** to move the cursor and highlight the desired map feature.
2. Press **ENTER/MARK** to capture the cursor position. A 'Review' page for that map feature appears. Use the **ARROW KEYPAD** to highlight 'Create Wpt' and press **ENTER**.
3. The waypoint 'Review' page appears. To accept the waypoint with the default name and symbol (based on the map feature), highlight 'OK' and press **ENTER**.

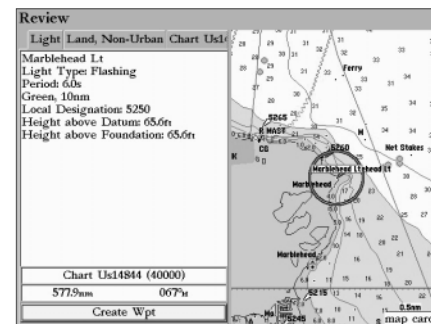
To change the name, symbol, position, or enter comments, depth, or water temp, highlight the appropriate field and press **ENTER**. Make your changes and press **ENTER**. After entering and confirming your changes, use the **ARROW KEYPAD** to highlight 'OK' and press **ENTER**.

Reference

Creating Waypoints



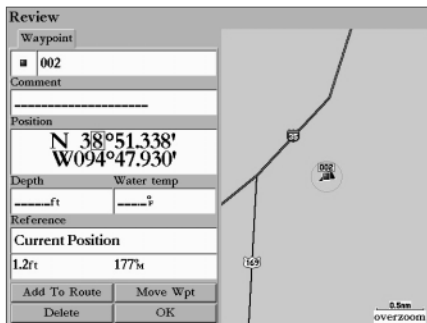
Creating a waypoint on an open map location.



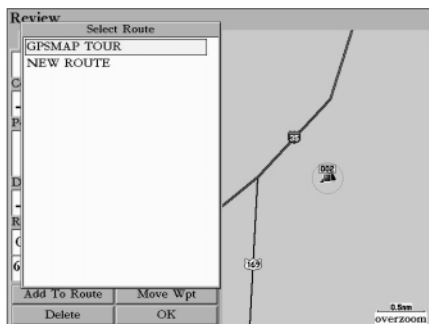
Using a map item to create a new waypoint. (BlueChart data shown.)

Reference

Creating Waypoints



Highlight the position field and use the ARROW KEYPAD to enter the desired position coordinates.



Choose the Route you wish to add the waypoint to.

Additional Options For Creating Waypoints

Waypoints may also be created by manually entering position coordinates through the Points tab of the Main Menu. This method can be 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 (pg. 70) and map datum (pg. 71) as the paper chart or coordinate's source.

To create a new waypoint by manually entering location coordinates:

1. Hold **ADJ/MENU** for two seconds to display the Main Menu. Highlight the 'Points' tab. You may also **MARK** your current location using the steps on page 36, then proceed to step 3.
2. Highlight the 'New Waypoint' button and press **ENTER**. The waypoint 'Review' page appears, with the next available waypoint number and the receiver's last known position as the default name and position.
3. Use the **ARROW KEYPAD** to highlight the position field and press **ENTER**. Use the **ARROW KEYPAD** or **DATA ENTRY** keys to enter the desired position coordinates and press **ENTER** when finished.
4. To change the name, symbol, or enter comments, depth, or water temp, highlight the appropriate field and press **ENTER**. Make your changes and press **ENTER** when finished.
5. Use the **ARROW KEYPAD** to highlight 'OK' and press **ENTER** to save the waypoint.

Two additional options are available on the waypoint 'Review' 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. Select 'Add To Route' button.
2. The 'Select Route' screen appears. Highlight the desired route or select 'New Route' and press **ENTER**.
3. With 'OK' highlighted, press **ENTER** to save the waypoint.

For more on using Routes, see page 48. For instructions on the 'Move Wpt' option, see page 40.

Reviewing and Editing Waypoints

Once you have created and stored a waypoint, it may be modified, reviewed, renamed, moved (projected), or deleted at any time through the waypoint “Review” page. This page displays details about the waypoint and a Map window that may be panned or scaled. You may view waypoints via a Map window or from a Waypoint List (see page 41 for more information on Lists).

To access the waypoint Review page from a Map window:

1. Use the **ARROW KEYPAD** to highlight the desired waypoint on a Map window.
2. Press **ENTER** to display the waypoint Review page. If multiple waypoints are grouped tightly together due to the current Range setting, or if the waypoint is located on a map feature (MapSource/BlueChart feature), the waypoint Review page includes additional information tabs about the other features at that location.

To access the waypoint Review page from a waypoint List:

1. Hold **ADJ/MENU** for two seconds to view the Main Menu. Use the **ARROW KEYPAD** to highlight the ‘Points’ tab, then highlight the desired waypoint from the ‘User’ or ‘Proximity’ submenu tab lists.
2. Press **ENTER** to display the waypoint Review page. Additional information tabs will not display in this mode.

To access the Review page Map window:

1. Press **FCTN** to move the yellow highlight to the Map window. You may now pan the map and change the map scale. See page 28 for more information.
2. Press **FCTN** to return the yellow highlight back to the left side of the Review page.

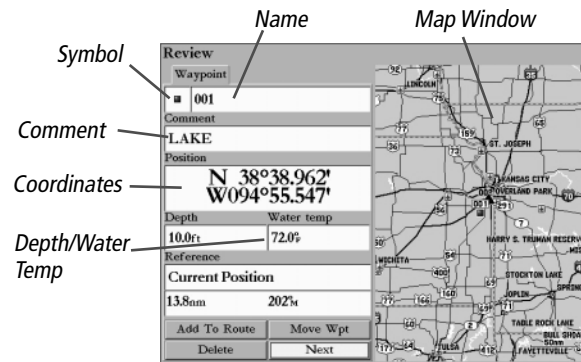
From the waypoint Review page, you may change the name, symbol, comment, position coordinates, depth, or water temp for the selected waypoint. (If you are using optional Garmin Sonar hardware, the Depth and Water Temp fields fill in automatically.) Once the changes have been made, highlight ‘OK’ (Waypoint Review Page) or ‘Next’ (Waypoint Edit Page) and press **ENTER** to save them.

To change the waypoint name:

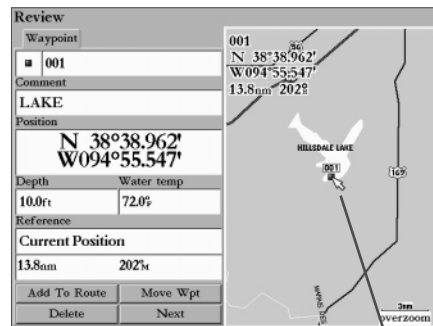
1. Highlight the waypoint name field and press **ENTER**.
2. Use the **ARROW KEYPAD** or **DATA ENTRY** keys to enter a new name and press **ENTER** when done.

Reference

Reviewing and Editing Waypoints



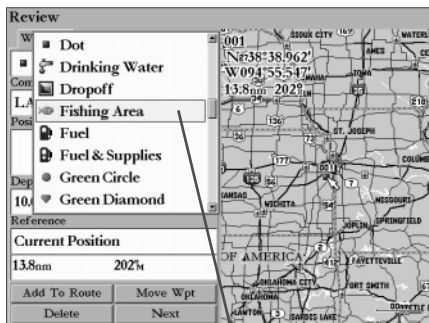
Waypoint Review Page



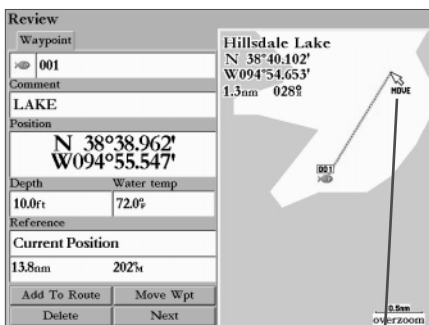
You may zoom and pan the cursor on the Map Window. Press **FCTN** to return to the left side of the page.

Reference

Reviewing and Editing Waypoints



Changing a Waypoint symbol.



Use the ARROW KEYPAD to move the waypoint to a new position on the map.

To change the waypoint symbol:

1. Highlight the waypoint symbol field to the left of the waypoint name and press **ENTER**.
2. Use the **ARROW KEYPAD** or **DATA ENTRY** keys to select the desired symbol and press **ENTER**.

To change the comment/position coordinates/depth/water temperature:

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

On the waypoint Review page, you may also delete the selected waypoint, view the waypoint on the map, and move the waypoint on the map.

To delete a waypoint:

1. On the waypoint Review page, use the **ARROW KEYPAD** to highlight the 'Delete' button and press **ENTER**.

A waypoint may also be modified by moving or "projecting" the distance and bearing from its current location to a new location.

To move or project a waypoint:

1. Select the 'Move Wpt' button.
2. The Map window on the right side highlights with the selected waypoint centered and highlighted on a map display. The word "MOVE" appears below the pointer. Use the **ARROW KEYPAD** to move the waypoint to the new position. The distance and bearing from the waypoint's location displays in the upper left of the Map window.
3. Press **ENTER** to move the waypoint to the new location.
4. Press **FACT** 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’s distance and bearing from your current position. You may also reference the waypoint’s location from another waypoint, map location, or category from a data card.

To reference a waypoint from another item:

1. From the waypoint Review page, highlight the “Reference” field and press **ENTER**. The “Find From Current Position” window appears.
2. Select the desired category and press **ENTER**. For some categories, you may need to select multiple subcategories. Once selected, the waypoint Review page displays the Reference field with the waypoint’s distance and bearing from that point.
3. For referencing from a Map Position, use the **ARROW KEYPAD** to select the Reference position and press **ENTER**. As you move the cursor around the map the data changes to show the distance and bearing.

Waypoint Lists

The GPSMAP 3006C/3010C’s ‘Points’ tab features two submenu tabs, ‘User’ and ‘Proximity’, that let you manage a large number of waypoints quickly and efficiently. The submenu tabs also provide a continuously updated proximity waypoint alarm function that can be used to define an alarm circle around submerged hazards, shallow waters, etc.

To access the waypoint submenus of the Main Menu:

Hold **ADJ/MENU** for two seconds, highlight the ‘Points’ tab using the **ARROW KEYPAD**, then highlight the desired submenu tab.

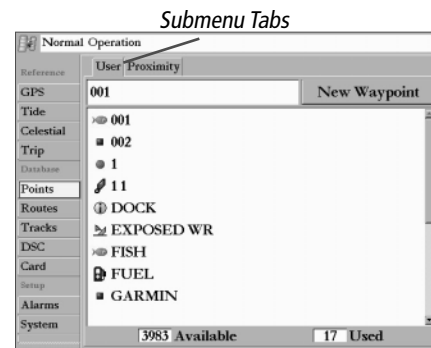
User Waypoint List

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

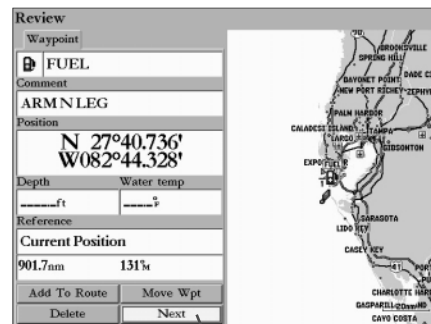
To scroll through and review the waypoint list:

1. With the **ARROW KEYPAD**, highlight the ‘Points’ tab on the main menu, then highlight ‘User’.
2. Use the **ARROW KEYPAD** to scroll through the list in the desired direction.
3. Press **ENTER** to review the highlighted waypoint on the waypoint Review page (see page 39 for detailed information on reviewing and editing waypoints).

Reference Waypoint Lists



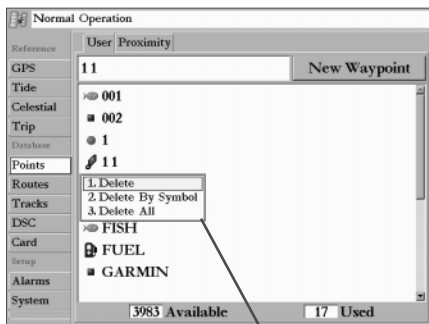
Main Menu—Points Tab



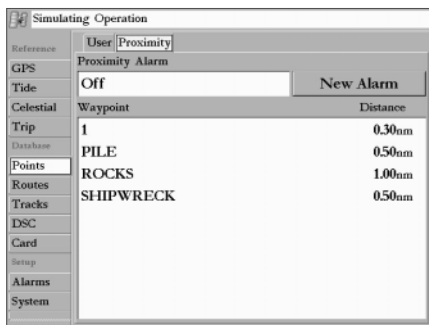
Waypoint Review Page
Select ‘Next’ to advance to the next point on the list.

Reference

Waypoint Lists



Waypoint Delete Options



Proximity Waypoints List

- With 'Next' highlighted, press **ENTER** to return to the list. The field highlight automatically moves to the next waypoint in the list.

The following options are available by pressing **ADJ/MENU** while highlighting a waypoint on the 'User' submenu of the 'Points' tab:

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

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

To delete an individual waypoint from the 'User' list:

- Use the **ARROW KEYPAD** to highlight the waypoint to be deleted.
- Press **ADJ/MENU**, select 'Delete Waypoint' and press **ENTER**.

OR, press **ENTER**, select the 'Delete' button from the Review page and press **ENTER**.

To delete waypoints by symbol:

- From the 'User' tab, highlight the waypoint to be deleted and press **ADJ/MENU**, then select 'Delete By Symbol' and press **ENTER**.
- Use the **ARROW KEYPAD** to highlight the symbol of the waypoint(s) to be deleted and press **ENTER**.
- Press **ENTER** to confirm. Choose 'Cancel' or press **QUIT** to stop the deletion.

To delete all user waypoints:

- Press **ADJ/MENU** to select the options window.
- Use the **ARROW KEYPAD** to highlight 'Delete All' and then press **ENTER**.
- Highlight the 'OK' prompt and press **ENTER** to confirm.

Proximity Waypoint List

The 'Proximity' submenu of the Points tab lets you define an alarm circle around a stored waypoint position, and can be used to help you avoid reefs, rocks, or restricted waters. Up to ten waypoints may be listed, with a maximum alarm radius of 99.99 nautical or statute miles or kilometers. If a proximity alarm circle overlaps with an existing alarm circle, the message 'Proximity Overlaps Another Proximity Waypoint'

appears. Since 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 only alerted to the closest proximity waypoint.

To add a proximity waypoint:

1. Use the **ARROW KEYPAD** to select the 'New Alarm' button and press **ENTER**. The 'Find' screen appears. Highlight 'Waypoints' and press **ENTER**.
2. Use the **ARROW KEYPAD** to highlight the desired waypoint from the 'By Name' or 'Nearest' tab lists and press **ENTER**. The waypoint Review page appears for the selected waypoint within a red circle.
3. With 'OK' highlighted, press **ENTER** to confirm. The distance field is now highlighted.
4. Press **ENTER** to begin entry of the proximity radius.
5. Use the **ARROW KEYPAD** or **DATA ENTRY** keys to enter a distance (to 99.99 units) and press **ENTER**.

To turn proximity alarms on or off:

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

The following options are available by pressing **ADJ/MENU** while highlighting a point from the 'Proximity' submenu of the 'Points' tab:

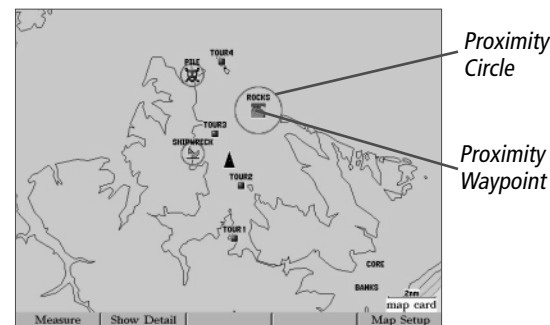
- Delete— removes selected waypoint from proximity list.
- Delete All— removes all waypoints from proximity list.

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

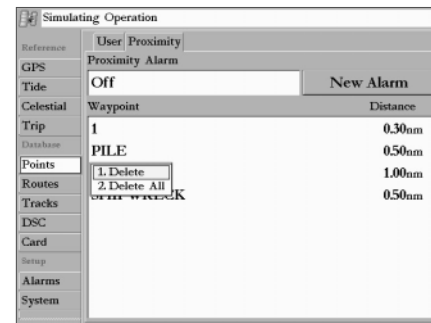
1. Use the **ARROW KEYPAD** to highlight the proximity waypoint to clear and press **ADJ/MENU**.
2. To clear a single alarm, select the 'Delete' option and press **ENTER**.
3. To clear all proximity waypoints, select the 'Delete All' option and press **ENTER**.
4. Use the **ARROW KEYPAD** to highlight the 'OK' prompt and press **ENTER** to confirm. Choose 'Cancel' or press **QUIT** to stop the deletion.

If you Review a waypoint from the 'Proximity' List and delete the point using the 'Delete' button, the waypoint itself deleted in addition to it being removed from the 'Proximity' List.

Reference Waypoint Lists



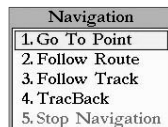
A red circle appears showing the alert boundary for the proximity waypoints.



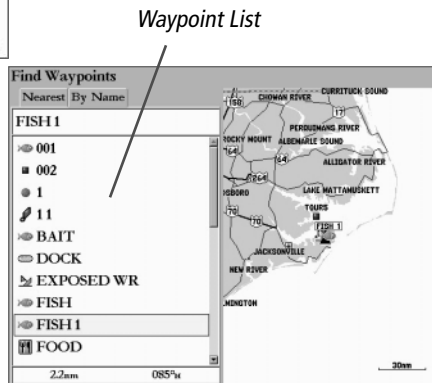
*Highlight the Proximity alarm you wish to remove and press **ADJ/MENU**.*

Reference

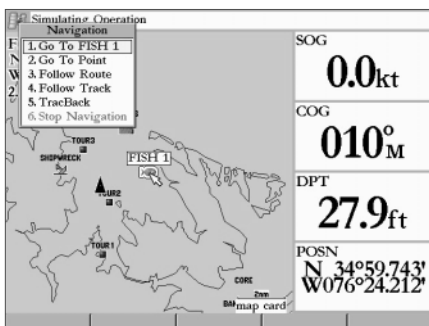
Going to a Destination



Name
Field



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



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

Going to a Destination

Using the **NAV** key, the GPSMAP 3006C/3010C provides four primary ways to navigate to a destination: Go To Point, Follow Route, Follow Track, and TracBack. Once 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 position. 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 the **NAV** key.
2. Use the **ARROW KEYPAD** to highlight 'Go To Point' and press **ENTER**.
3. From the 'Find From Current Position' window, highlight 'Waypoints' and press **ENTER**. (You may also choose to go to other points, such as Cities, Tide Stations, etc. from this list.)
4. Select a waypoint from the 'By Name' or 'Nearest' list, then press **ENTER**. To display the waypoint Review page for the selected waypoint.
5. With the 'Go To' button highlighted, press **ENTER** to begin navigation.

To stop navigation:

Press the **NAV** key and select 'Stop Navigation'.

Selecting a 'Go To' Graphically

A graphical 'Go To' may be used to select one of three items from the map display: an existing waypoint, an on-screen map item (roads, rivers, cities, nav aids, etc.), or a new map point (non-map item). If you select a map item as the 'Go To' destination, the GPSMAP 3006C/3010C automatically uses the name of the map item, but the point is not stored in the waypoint list (see page 37 for creating waypoints using map items). If you select a new map point (non-map item) as the 'Go To' destination, the GPSMAP 3006C/3010C automatically creates or moves a waypoint named 'MAP' at the cursor position.

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

1. Use the **ARROW KEYPAD** to highlight the waypoint or map item on the screen and press **NAV**.
2. With 'Go To <waypoint name>', press **ENTER** or the associated **DATA ENTRY** key.

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

1. Use the **ARROW KEYPAD** to move the arrow cursor to the desired position and press **NAV**.
2. With 'Go To MAP Point' highlighted, press **ENTER** or the associated **DATA ENTRY** key.

To stop navigation:

Press the **NAV** key and select 'Stop Navigation'.

Follow Track and TracBack Navigation

A "track" is an electronic breadcrumb trail recording or history of your path. The track that is currently being recorded is referred to as "Active". An active Track may be stored in the unit and once 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. Once activated, a TracBack route leads you back to the oldest stored track log point, so it's 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. Hold **ADJ/MENU** for two seconds to display the Main Menu. Highlight the 'Tracks' tab, then highlight the 'Active' tab to the right.
2. Use the **ARROW KEYPAD** to highlight the 'Clear' button and press **ENTER**.
3. Highlight 'OK' and press **ENTER**.

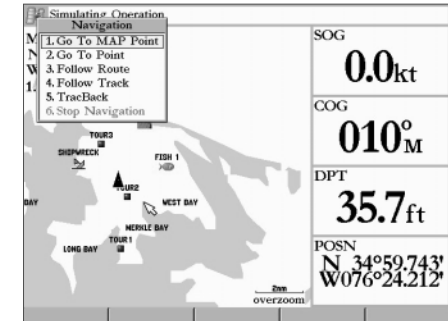
You must first save a track log before you can use the 'Follow Track' feature. The Save feature allows you to store up to 15 track logs from certain times and dates.

To save a track log:

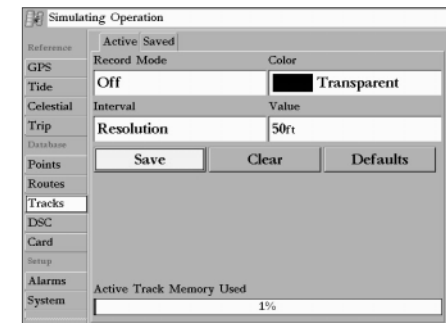
1. Hold **ADJ/MENU** for two seconds to display the Main Menu. Highlight the 'Tracks' tab, then highlight the 'Active' tab to the right
2. Use the **ARROW KEYPAD** to select 'Save' and press **ENTER**.
3. On the 'Save Back Through' window, highlight the desired time, date, or 'Entire Log' and press **ENTER**.

Reference

Going to a Destination



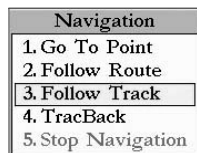
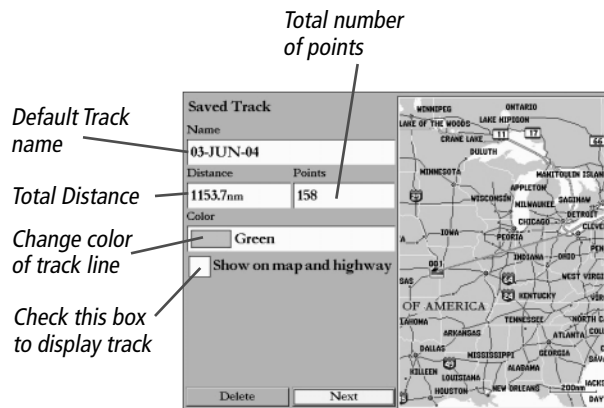
'Go To MAP Point' allows you to navigate to a spot on the map that is not a waypoint or map item.



Highlight 'Save' and press ENTER to save an active track log.

Reference

Going to a Destination



You must first 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 after you select 'Follow Track.'

4. Next, the track begins saving and then displays the 'Saved Track' window when done. 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 your changes and press **ENTER** again.

To choose a Color that is used to display the saved track line, highlight the 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**.

5. Highlight 'OK' and press **ENTER** to save the track.

To activate a Follow Track using the NAV key:

1. Press the **NAV** key, then select 'Follow Track'.
2. Highlight the track you wish to follow and press **ENTER**.
3. If you wish to invert (navigate it in the reverse direction) the Follow Track, press **NAV** and select 'Invert Route'.

To activate a TracBack using the NAV key:

1. Press the **NAV** key, then select 'TracBack'.
2. On the 'TracBack Through' window, highlight the desired time, date, or 'Entire Log' and press **ENTER**.

Once a TracBack has been activated, the GPSMAP 3006C/3010C takes the track log currently stored in memory and divides it into segments called 'legs'. Up to 300 temporary 'turns' (BEGIN, TURN 1, TURN 2, TURN 3, ..., TURN X, END) are created to mark the most significant features of the track log in order to duplicate your exact path as closely as possible. To get the most out of the TracBack feature, remember the following tips:

- Always clear the track log at the point that you want to go back to (dock, etc.).
- The 'Record Mode' option on the track log setup page must be set to 'Fill' or 'Wrap'. (see page 61)
- There must be at least two track log points stored in memory to create a TracBack route.
- If the track log interval is set to the 'Time' option, the route may not follow your exact path (keep the interval set to 'resolution' for best performance).

- If the receiver is turned off or satellite coverage is lost during your trip, the TracBack 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 may 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.

To stop TracBack navigation:

Press the **NAV** key and select 'Stop Navigation'.

For more information on setting up the Track options and saved tracks, see pages 61.

MOB (Man OverBoard)

The GPSMAP 3006C/3010C's Man OverBoard function (MOB) lets you simultaneously mark and set a course to a position for quick response to emergency situations.

To activate the MOB function:

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

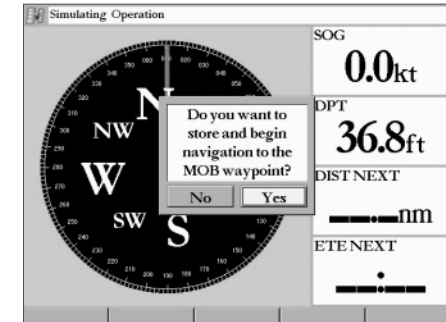
Once a MOB has been activated, a 'MOB' waypoint with an international MOB symbol is created and the unit is set on an active navigation to that point. Use any of the Navigation Pages to guide you back to the MOB point. The MOB waypoint is stored in the waypoint list and may be deleted like any other waypoint (see page 40).

To stop navigation to the MOB position:

Press the **NAV/MOB** key and select 'Stop Navigation'.

Reference

Man OverBoard



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



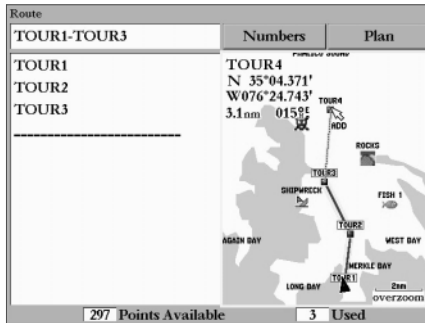
Highlight 'Stop Navigation' and press ENTER to stop navigating.

Reference

Creating a Route



Main Menu—Routes Tab and Route Options Menu



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

Routes

The last way to navigate to a destination is to create a user-defined route. A route is a series of waypoints or map items which may be navigated from point to point. The Garmin GPSMAP 3006C/3010C system lets you 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 way is to use the 'Map' option from the Route page, allowing you to see each route on a map with a waypoint list as you create, review, or modify the route. The second way is to use the 'Numbers' option from the Route page, allowing you to see a list of the route points along with distance and course information as you create, review, or modify the route. You may also switch back and forth between these to options as you create a route. All of the GPSMAP 3006C/3010C's route functions are accessed through the 'Route' tab on the Main Menu page, the **NAV** key, or through the Highway function's Adjustment Menu.

To create a route graphically from the Route map page:

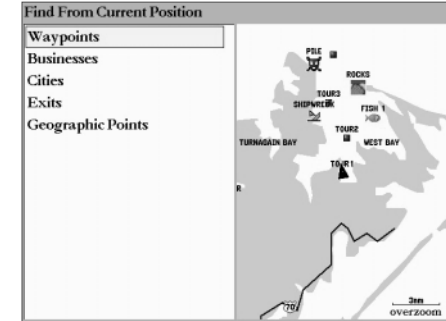
1. Hold **ADJ/MENU** for two seconds to display the Main Menu. Use the **ARROW KEYPAD** to highlight the 'Routes' tab.
2. Highlight the 'New Route' button and press **ENTER**.
3. The Map window is highlighted. To add an existing waypoint or map item to the route, use the **ARROW KEYPAD** to highlight the desired waypoint or map item on screen and press **ENTER**. To create a waypoint from a map item, see page 37.
4. To add a new waypoint to be used in the route, use the map cursor to select the desired map position and press **ENTER**. Highlight 'OK' and press **ENTER** again to confirm the new waypoint. You may also change the name, symbol and other properties of the new waypoint (see pages 40).

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 cursor from the last route waypoint.

5. Repeat steps 3 and 4 until you have finished defining all route waypoints.
6. When finished press **QUIT** three times to return to the Route List page; or press **FCTN** to move the highlight to the Route waypoint list and option buttons.

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

1. Hold **ADJ/MENU** for two seconds to display the Main Menu. Use the **ARROW KEYPAD** to highlight the 'Routes' tab.
2. Highlight the 'New Route' button and press **ENTER**.
3. Press **FACTN**, then highlight the 'Numbers' button and press **ENTER**.
4. Use the **ARROW KEYPAD** to highlight the first field under the word "Waypoint" and press **ENTER**.
5. From the Find menu, highlight 'Waypoints' and press **ENTER**. (You may also choose from other points, such as Cities, Tide Stations, etc. from this list.) Select a waypoint from either the "By Name" or "Nearest" tab list and press **ENTER**. (See page 54 for searching for waypoints by name.)
6. On the Review page, 'OK' is automatically highlighted. Press **ENTER** to add the point to the route.
As you add each new waypoint to the route, the list shows the waypoint/map item name, leg distance, course between points, and a selectable column to display a variety of other route information (see page 53). The bottom of the display shows totals for each column.
7. Repeat steps 4-6 until the desired route points have been entered. Press **QUIT** to return to the Route List page.



Choose the type of point you want to add to the route.

Following a Route

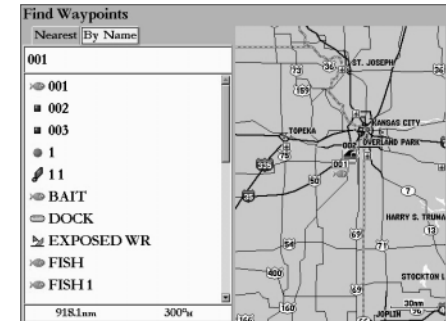
Once a route has been created, it can be activated and used for navigation with the **NAV** key. A route may be followed in the same sequence as it was originally created, inverted and followed from the end point back to the beginning point, or re-evaluated.

To activate and follow a route:

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

To deactivate (stop navigation) of a route:

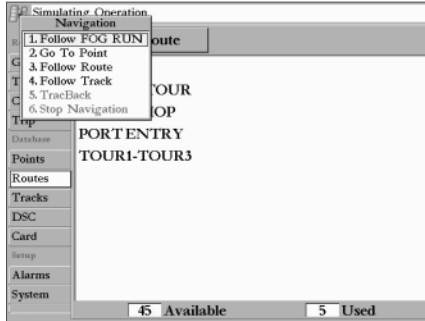
Press the **NAV** key, select 'Stop Navigation'.



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

Reference

Reviewing a Route



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



Route List Options

The following additional options are available by pressing **NAV** and selecting the desired 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 3006C/3010C Route List page (‘Routes’ tab of the Main Menu) displays all the routes currently stored in memory, along with a descriptive name for each route. By pressing **ADJ/MENU** while highlighting a Route name on the Route List page, the following menu options appear: ‘Copy Route’, ‘Delete’, or ‘Delete All’.

To copy or delete a route:

1. From the Route List, using the **ARROW KEYPAD**, highlight the route you want to copy or delete and press **ADJ/MENU**.
2. Select either ‘Copy Route’ or ‘Delete Route’. For ‘Delete’ press **ENTER** with ‘OK’ highlighted to confirm a deletion. ‘Copy’ displays the Route Review page for the new route. Copy uses the same route name with an additional number, starting at 1, at the end of the route name.

To delete all routes:

1. From the Route List, press **ADJ/MENU**.
2. Select ‘Delete All’. With ‘OK highlighted, press **ENTER** again to confirm.

Route Review Page

Once you have created or copied a route, the Route Review page allows you to edit a selected route.

To access the Route Review page:

1. Hold **ADJ/MENU** for two seconds to display the Main Menu. Use the **ARROW KEYPAD** to highlight the ‘Routes’ tab.
2. Highlight the name of the route you wish to review and press **ENTER**.

Reference

Editing a Route

The Route Review page also allows you 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. From the Route Review page, highlight the name field and press **ENTER** to begin editing.
2. Use the **ARROW KEYPAD** or **DATA ENTRY** to enter the desired name and press **ENTER** when finished.

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

To review individual route points:

1. Highlight the desired point. The selected point highlights on the Map window. Press **ENTER**.
2. On the Point Review window, you may choose 'Remove From Rt' (removes the point from the route), 'Move Wpt' (Move the point. See page 40), '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 may edit any of the waypoint properties on the Review page (see page 39).

Once you are back on the Route Point List, the next point in the route is automatically highlighted (if 'Next' is selected). This allows you to review each point on the route by repeatedly pressing **ENTER**.

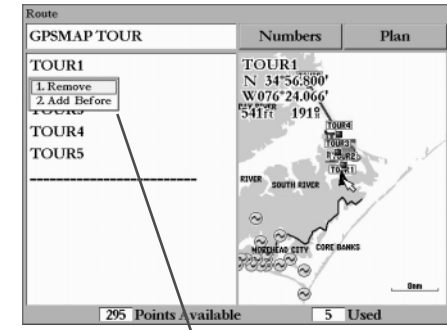
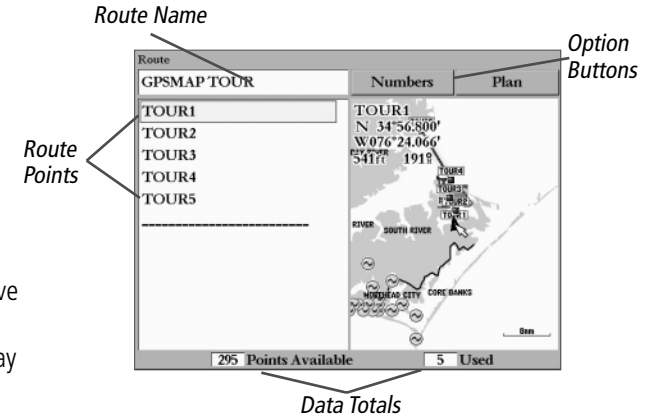
Editing Routes

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

To graphically edit a route on the map:

1. From the Routes List, highlight the name of the route you wish to edit and press **ENTER**.
2. Press **FCTN** to highlight the Map window.

You may now use the **ARROW KEYPAD** highlight points to review and modify the route displayed for each point (waypoint or map item). You may also use the cursor to insert a new route point on a route leg, or review the waypoint or map item.



Reference

Editing a Route

Review

Waypoint

■ TOUR3

Comment

Position

N 35°01.287'
W 076°25.085'

Depth

Water temp

Reference

Current Position

4.5nm 359m

Remove From Rt Move Wpt

Delete Next

Highlight a route point and press ENTER to review it.

Route

GPSTOUR	Numbers	Plan
TOUR1	Pamlico Sound	
TOUR2	N 35°09.107'	
TOUR3	W 076°31.978'	
TOUR4	13.9nm 342°	
TOUR5		

295 Points Available 5 Used

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

To edit a route point from the Map window:

1. Use the **ARROW KEYPAD** to highlight the desired route point or you wish to edit and press **ADJ/MENU**. A pop-up menu of editing choices appears.
2. Select 'Remove' to remove the route point.
3. Select 'Move' (user waypoints only) to move the waypoint, then use the **ARROW KEYPAD** to move it to the new location and press **ENTER**.
4. Select 'Add' (to beginning or end points only), then use the **ARROW KEYPAD** to highlight the new beginning or end point and press **ENTER**. If the point is a new map waypoint, highlight 'OK' and press **ENTER**. 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 **ARROW KEYPAD** 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 cursor to the new map position, existing waypoint, or map item (You see 'ADD' below the arrow and the route lines moves with the arrow) and press **ENTER**.
3. If you are not inserting an existing point, press **ENTER** to confirm the new waypoint.
4. Press **QUIT** to return to the Route Review page.

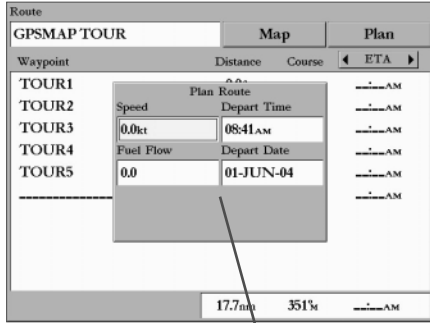
To edit a route from the Route 'Numbers' list:

1. From the Route 'Numbers' list, use the **ARROW KEYPAD** to highlight the desired route point or you wish to edit and press **ADJ/MENU**. A pop-up menu of editing choices appears.
2. Select 'Remove' to remove the route point.
3. Select 'Add Before' to insert a point between two existing points, then from the 'Find From Current Position' list, highlight 'Waypoints' and press **ENTER**. (You may also choose from other points, such as Cities, Tide Stations, etc. from this list.) Select the point you want and press **ENTER** twice. (See page 54 for searching for waypoints by name.)

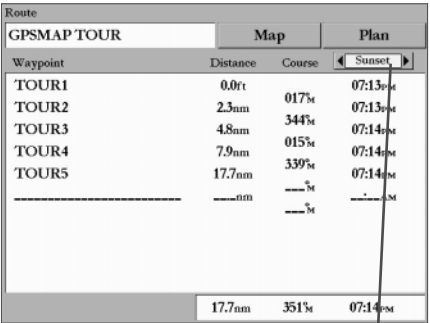
Planning Routes

The Route Review ‘Numbers’ list displays trip-planning information for each leg or the entire route. You may access the Planning setup from either Route Review list and the data may be viewed from the Route ‘Numbers’ list only. The far right data column may be changed 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).

Reference
Planning a Route



Trip Planning Data Fields



Once selected, press LEFT or RIGHT on the ARROW KEYPAD to change the data field.

To use the Plan Route feature:

- 1. From the Route Review list, use the **ARROW KEYPAD** to highlight the ‘Plan’ button and press **ENTER** to display the Plan Route page.
- 2. To enter planning information figures for Speed, Fuel Flow, Departure Time, and Departure Date.
- 3. Press **QUIT** to return to the Route Review Page.

To change the data column Plan Route feature:

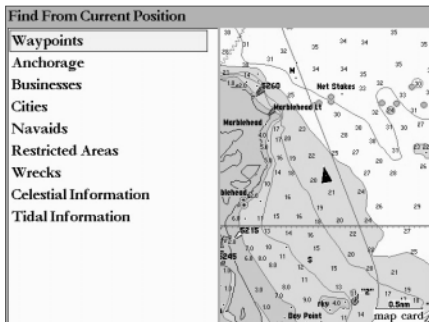
- 1. From the Route ‘Numbers’ list, highlight the adjustment button to the right of the “Course” and press **ENTER**. The middle title highlights in yellow.
- 2. One of nine available planning figures appears to the right of each route waypoint and its distance. Use the LEFT/RIGHT keys on the **ARROW KEYPAD** to select the desired item and press **ENTER** when done.



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 upon available information for your vehicle (operator’s manual, performance specifications, etc.) and make note of the desired units of measure (gallons, liters, etc.).

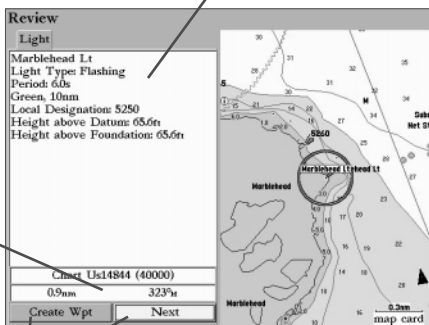
Reference

Using the FIND key



Find Items List From the Current Position

Item Description



Distance,
Bearing,
Chart Name
of item

Additional
Option Buttons

Additional Information Window

Find Key

The **FIND** key allows you to search the unit for user waypoints, map items, and any optional BlueChart or MapSource information loaded on a data card. Press the **FIND** key to search for items from your current location by default. You may also search from other locations. When you press **FIND**, a list of available items to search for appears. The default items are Waypoints, Cities, Celestial Information, and Tidal Information. Additional items, such as Anchorages, Businesses, Navaids, Restricted Areas, Wrecks, etc., 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 point where the cursor is located. When using BlueChart or MapSource data, your position or the map pointer must be within the map outline area to search for information from that area.

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

1. From any page, press **FIND**.
2. Using the **ARROW KEYPAD**, highlight the desired category from the list, and press **ENTER**. For some categories, you may need to select multiple subcategories depending on what BlueChart or MapSource data you have loaded.
3. For Waypoints and Cities, you may search using 'By Name' or 'Nearest'. Use the **ARROW KEYPAD** to highlight the desired tab. For 'By Name', you may select the top field to spell out the name or scroll down through the list.
4. Some items have a 'Filter List' button that allows you to enter letter or numbers of the desired item's name. The search results only shows items matching the letters/numbers that are entered. Highlight the 'Filter List' button and press **ENTER**, then enter data as needed to narrow your search.

To find a waypoint or item from another location on the map:

1. From the Map Page, use the **ARROW KEYPAD** to pan to the desired location and press **FIND**.
2. Using the **ARROW KEYPAD**, highlight the desired category from the list and press **ENTER**.

To view details about an item:

1. With the desired item highlighted in the search results list, press **ENTER**.
2. The Find Review pages 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.

Main Menu Page

The GPSMAP 3006C/3010C'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. See pages 14-15 for additional instructions changing settings and entering data. As you add optional hardware to the MFD or Garmin Marine Network, additional Main Menu tabs or submenu tabs may appear automatically. For specific instructions on additional adjustments and features, please refer to the specific section (or manual) for that hardware device.

To access the Main Menu Page and select Menu/Submenu tabs:

1. Press and hold **ADJ/MENU** for two seconds. The Menu tabs are divided into categories by function.
2. Move the **ARROW KEYPAD** UP or DOWN to highlight the tab you want to view. (The cursor will wrap around as you reach the top/bottom of the list.) The information for the highlighted tab automatically appears to the right. If you want to highlight any of the submenu tab items, press to the RIGHT on the **ARROW KEYPAD**, then move UP or DOWN to select individual items.
3. Press either **ADJ/MENU** for additional submenu options or press **ENTER/MARK** to make changes to the highlighted item. Press LEFT on the **ARROW KEYPAD** to get back to the Menu tab list. Press **QUIT** to return to the previous page.

The default Main Menu tabs are:

Reference

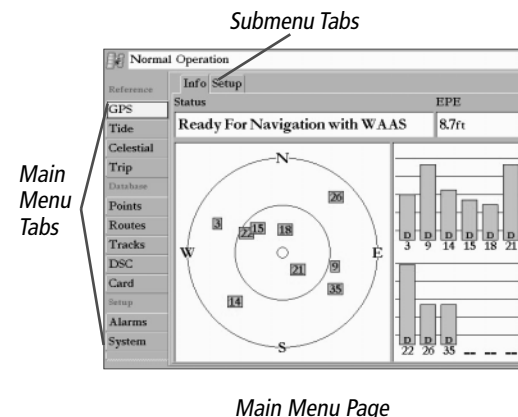
- GPS – shows satellite status, accuracy, initialize position.
- Tide – shows 24 hour tide chart with levels and times.
- Celestial – shows sun/moon time cycles and positions.
- Trip – provides trip speeds, odometers, averages, and trip timers.

Database

- Points – allows you to create, edit or delete waypoints. See page 36.
- Routes – allows you to create, edit, activate or delete routes. See page 48.
- Tracks – lets you record a track, define how it is recorded and displayed.
- DSC— allows you to control the Digital Selective Calling (DSC) interface. (continued)

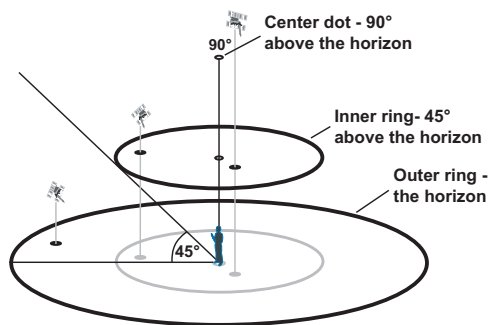
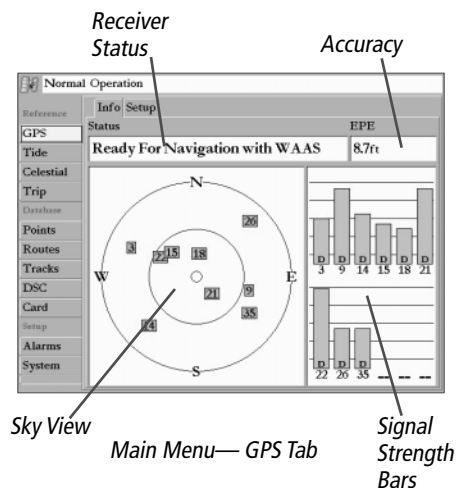
Reference

Main Menu Page



Reference

Main Menu: GPS Tab



Database (continued)

- Card – interface control for saving waypoints, routes and tracks to a data card.

Setup

- Alarms – sets up alarms system, navigation, and optional sonar.
- System – defines System, Units, Time, Communication, and Marine Network settings.
- Map – defines Map Page and Map window settings. See page 29
- Temp – sets up the water temperature log. (if equipped with GSD 20 or NMEA compatible device)
- Highway – sets up Highway Page features. See page 35.

GPS Tab— the “Info” submenu 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.

As soon as the GPSMAP 3006C/3010C has collected the necessary data from the best satellites in view to calculate a fix, the status field indicates “Ready For Navigation” in the Status field. The unit then updates the position, date and time.

You can use the sky view to help determine if any satellites are being blocked, and whether you have a current position fix (indicated by a “Ready For Navigation” in the Status field). The sky view shows a bird’s-eye view of the position of each satellite relative to the receiver’s last known position. The outer circle represents the horizon (north up), the inner circle 45° above the horizon, and the center point a position directly overhead. You can also set the sky view to a ‘Track Up’ configuration, causing the top of the sky view to align along your current track heading.

WAAS Capability

The GPSMAP 3006C/3010C 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/sea based users may also benefit from this system. At this time, the system is still in the development stage and is not fully operational. There are currently two WAAS satellites that can be received in the U.S.A., one over the Atlantic Ocean and one over the Pacific Ocean, in a geo-stationary orbit over the equator. Effective use of the WAAS satellite signal may be limited by your geographic location in relation to those satellites, now in developmental service. WAAS satellite signal reception requires an absolute clear view of the sky and works best when there are no nearby obstructions such as buildings, mountains, etc. WAAS satellites are numbered 33 or higher when viewing the sky view on your GPSMAP 3006C/3010C. 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 positions and current state of development, visit the FAA web site (<http://gps.faa.gov>). Since WAAS requires CPU resources of the GPSMAP 3006C/3010C to search for and track the satellites, you may disable the WAAS feature to improve unit performance if WAAS reception is not available in your area.

Receiver Status and Accuracy

Receiver status is indicated by the Status field. 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 position 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 position, 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 position is now being calculated in latitude, longitude and elevation. 'Ready For Navigation with WAAS' appears when you are receiving WAAS satellite corrections in and a 'D' shows on the strength bar of satellites being corrected.

Reference

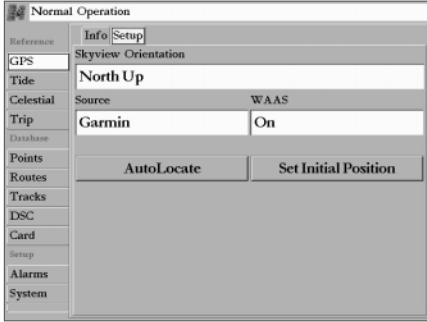
Main Menu: GPS Tab



The GPSMAP 3006C/3010C uses GPS technology in order to find your precise location. GPS stands for Global Positioning System, a group of 24 satellites, circling the earth twice a day at an altitude of about 12,000 miles. The satellites transmit very low power radio signals containing position and time information, allowing anyone with a GPS receiver to determine their location on the Earth within 100 meters or better. For more detailed information regarding GPS, Garmin has prepared a booklet titled "GPS Guide for Beginners" available from our Web site at www.garmin.com.

Reference

Main Menu: GPS/ Tide Tabs



GPS Setup Submenu Tab

The GPS Info tab features a “Setup” submenu tab that provides access to functions and features relating to the GPS tab.

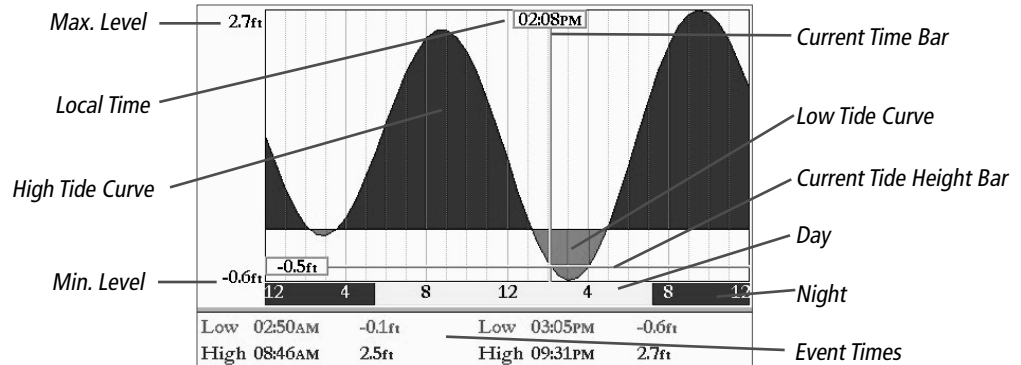
- **Skyview Orientation**— allows you to select between a North Up or Track Up sky view display for the GPS Info display only.
- **Source**— set to ‘Garmin’ when using a Garmin sensor (GPS 17) or to ‘NMEA’ when using any other GPS NMEA source.
- **WAAS**— toggles the WAAS capability of the receiver On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

The following option button only appear when the unit is not receiving satellites and set to ‘Garmin’ Source:

- **AutoLocate**— allows the receiver to locate your position automatically. This process can take up to five minutes.
- **Set Initial Position**— allows you to initialize the receiver graphically on the Map Page to initially help the receiver acquire more quickly. See page 16 for instructions on initialization.

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

The top of the page displays the tide station being referenced, the distance and bearing from your current location, and below that the date. The bottom of the chart shows a 24-hour block of local time for your position. Daylight (yellow bar) and nighttime (blue bar) at the station show 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 current time box at the top) indicates the time of day when using current date and intersects the tide graph to show their relation.

The tide curve shows as a shaded area, with higher tides being taller (blue) and lower tides shorter (red). The solid, horizontal line (with the current tide box on the left) indicates the current tide height. The figure to the left of the line 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 only appears if the tide ranges to the zero value 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 you current location:

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

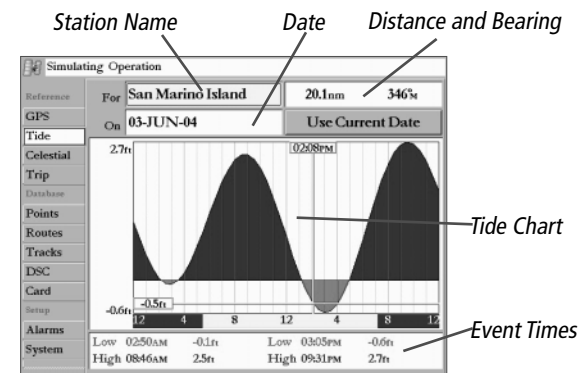
If you are not within this range, you see a message "None Found". Use the 'Map Position' option and select a location closer to a tide station.

To select a tide station from the map:

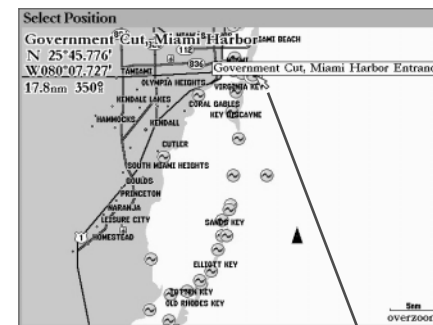
1. From the "Tide" tab, highlight the 'For' field and press **ENTER**.
or Press **FIND** from any page, then highlight 'Tidal Information' and press **ENTER**.
2. Highlight 'Map Position' and press **ENTER**.
3. Select a position on the map and press **ENTER**.
4. A list appears showing the nearest tide stations. Highlight the desired station and press **ENTER**. If the "None Found" message appears, repeat steps 1-4 until you find a station.

Reference

Main Menu: Tide Tab



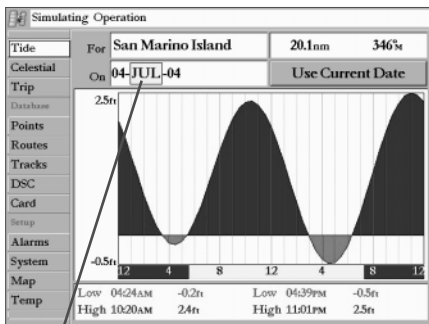
Main Menu—Tide Tab



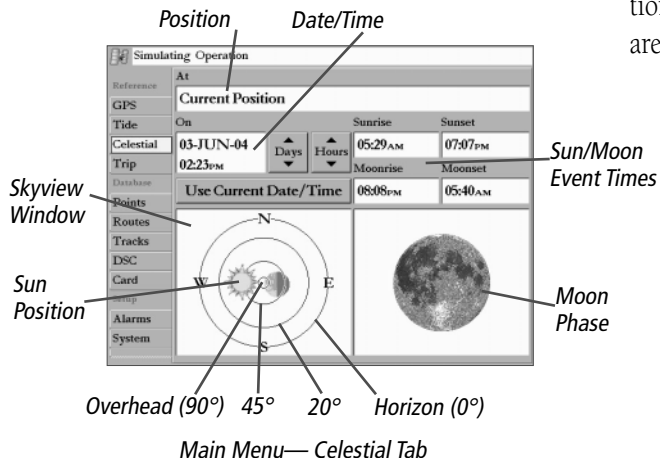
You may select a tide station from a Map position

Reference

Main Menu: Tide/ Celestial Tabs



You may change the date to see tide information from other days.



Main Menu— Celestial Tab

You may also change the date to see tide charts for other days and move the time bar on the tide chart in approximately 5 minute increments to show tide heights at various times on the chart.

To change the date for the tide chart:

1. Using the **ARROW KEYPAD**, highlight the "On" field and press **ENTER**.
2. Enter the desired 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 chart:

1. Highlight the chart field.
2. Press LEFT or RIGHT on the **ARROW KEYPAD** to change the time and day. The day will change as you move past the edge of the chart.

Celestial Tab— displays celestial data for sun and moon rise/set, moon phase, and approximate skyview location of the sun and moon. The moon phase displays the current visible portion of the moon as a light color. You may display this data for your current position, a position from the map, or a Find item location. Also, you may select a different date and time, or use the current date/time. The timetables displayed are based upon your current time zone.

To choose another position:

1. From the "Celestial" tab, highlight the 'At' field and press **ENTER**.
2. The "Find Celestial Information For" page appears. Make a selection and press **ENTER** until the information for that location is displayed on the Celestial tab. (See page 54 for more information on using the Find feature.)

To change the time or date:

1. From the "Celestial" tab, use the **ARROW KEYPAD** to highlight the 'Days' or 'Hours' buttons and press **ENTER**. Press UP or DOWN on the **ARROW KEYPAD** to change the Days/Hours. Press **QUIT** to exit.
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— displays data for Trip Odometer, Moving Average speed, Total Average speed, Maximum Speed, Stopped Time, Moving Time, Total Time, and Odometer. You may clear the data by choosing from ‘Clear Trip’, ‘Clear Odometer’, ‘Clear Max Speed’, or ‘Clear All’ and pressing **ENTER**.

Points Tab— contains the ‘User’ and ‘Proximity’ waypoint lists. See page 41.

Routes Tab— contains a list of available routes. See pages 48.

Tracks Tab— lets you specify whether or not to record a track log (an electronic ‘breadcrumb trail’ recording of your path), define how it is recorded, or save track log data for future use. The Tracks tab also provides an indicator of the memory used for the active track log and options to clear the track memory. See page 45 for TracBack information. The Track tab is divided in two submenu tabs: ‘Active’ and ‘Saved’.

Active Submenu Tab— is for the active log (the log currently being recorded). It displays track memory used and current settings. For the ‘Active’ tab, the following settings are available:

- Record Mode— lets you select one of three track recording options:
 - Off— No track log is recorded. Note that selecting the ‘Off’ setting prevents you from using 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— lets you choose a color that is used to display the active track log.
- 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 upon 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.
- Save button— allows you to save the current active track log.

Reference

Main Menu: Trip/ Tracks Tabs

Simulating Operation		
Reference	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
Database	0.1kt	15:50:06
Points	Maximum Speed	Odometer
Routes	259kt	0.8nm
Tracks	Clear Trip	Clear Max Speed
DSC	Clear Odometer	Clear All
Card		
Setup		
Alarms		
System		

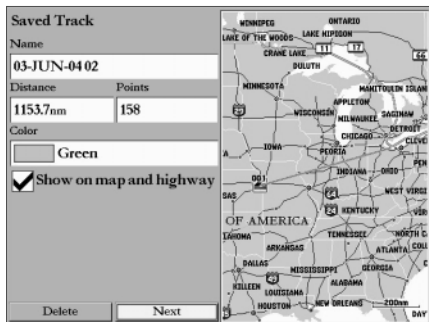
Main Menu— Trip Tab

Simulating Operation		
Reference	Active Saved	
GPS	Record Mode	Color
Tide	Off	Transparent
Celestial	Interval	Value
Trip	Resolution	50ft
Database	Save	Clear Defaults
Points		
Routes		
Tracks		
DSC		
Card		
Setup		
Alarms	Active Track Memory Used	
System	0%	

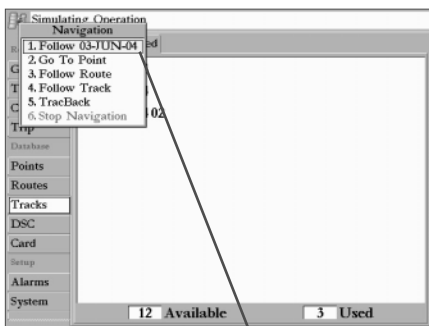
Main Menu— Active Track Tab

Reference

Main Menu: Tracks Tab



Reviewing a saved track



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

- Clear button— allows you to clear the active track log currently stored in memory.
- Defaults button— restores Track Tab settings to factory defaults.

Saved Submenu Tab— manages a list of any saved track logs, allows TracBack activation, map display of saved logs. The active log stores up to approximately 10,000 track log points, based upon the criteria specified in the Track settings. Up to 15 track logs may be saved in memory, with up to 700 track log points in each saved log.

On the 'Saved' submenu 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" Track tab of the Main Menu, highlight the desired track and press **ENTER**. The Saved Track window appears.
2. To change the name of the saved track, highlight the name field and press **ENTER**, make your changes and press **ENTER** again.

To choose a Color that is used to display the saved track line, highlight the 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**.

3. To exit, press **QUIT** or highlight 'Next' and press **ENTER**.

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

To activate a Follow Track from the 'Saved' tab list:

1. Using the **ARROW KEYPAD**, highlight the track you wish to Follow and press **NAV**.
2. The 'Follow <track name>' automatically appears highlighted. Press **ENTER**.
3. If you wish to invert (navigate it in the reverse direction) the Follow Track, press **ADJ/MENU** and select 'Invert Route'.

DSC Tab— allows to control and set up DSC (Digital Selective Calling) features on the unit.

What is 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.

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

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.

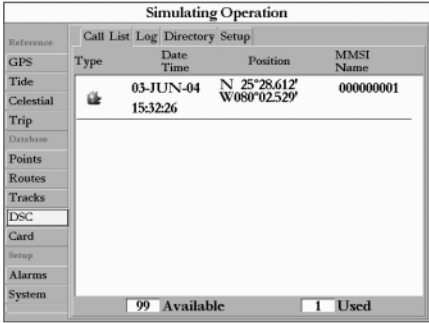
Any time a vessel receives a DSC call, they can store that location and quickly navigate to that position using a Go To. This makes DSC a time-saver, especially in an emergency situation. In order to use DSC, users must first register their VHF radio with the FCC and receive a Maritime Mobile Service 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!**

Reference

Main Menu: DSC Tab



DSC Tab

How ARE MMSI assignments obtained?

Non-commercial users (e.g. 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 please contact:** <http://www.uscg.mil/rescue21/links/mmsi.htm> or <http://wireless.fcc.gov/marine/>.

U.S Non-Federal User: 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/fctsht14.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.

U.S. Federal User: 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).

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

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 MMSI's 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 their 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 3006C/3010C is connected to a VHF 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 (pg.72 and Installation Guide).

DSC Distress Call

With a Garmin DSC capable chartplotter properly connected to a VHF radio with DSC output, you may receive any DSC Distress Call within range. A window pops up and a message displays when a Distress Call is received. To notify you a Distress Call has been received, an alarm sounds (if enabled). The alarm only sounds on a Distress Call, and it does not sound on a Position Report. Distress Calls are broadcasted to all DSC users in radio range and appear with a blue and white checkered icon.

You also have the ability to input a caller's name, if it is known. (The caller's name replaces the MMSI number as a reference once it is entered.)

DSC Position Report

The Position Report operates similarly to the Distress Call. Remember this type of contact is like a phone call, but 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.

DSC Call List

The DSC Call List displays the current calls received. The GPS can manage up to 100 calls. When 'calls' are received, they are updated constantly to give the most current information, even if the unit is left unattended. Any entry from the Call List can be selected to show an Entry Review.

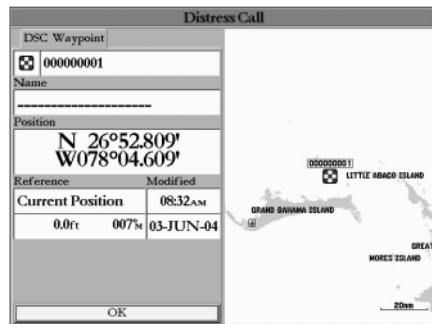
DSC Log

When DSC calls are received, they are automatically stored in the Log, with the latest call at the top. The unit may store up to 100 logs. Once 100 logs are received, the oldest log file is removed when a new call is received.

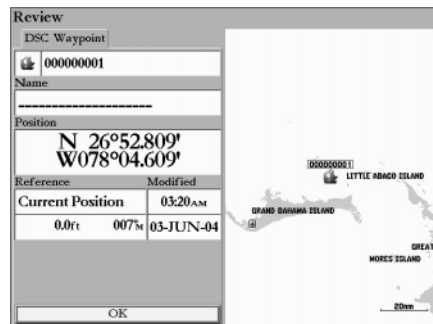
The Call List and Log both display information of call Type, Date/Time, Position, and MMSI/Name. Pressing **ADJ/MENU** from this list allows you to 'Sort By (Call) Type', 'Sort By Time', 'Sort By Name', 'Delete' (only after highlighting a particular call), and 'Delete All'. Select the desired option and press **ENTER**.

Reference

Main Menu: DSC Tab



Distress Call Message



Position Report Message

Reference

Main Menu: DSC Tab

Review

DSC Waypoint

Name 00000001

Position

N 26°52.809'
W 078°04.609'

Reference Modified

Current Position 03:20 AM

0.0r 007% 03-JUN-04

Create Wpt Delete Next

DSC Item Review

Simulating Operation

Call List Log Directory Setup

Directory Item Review

GPS

MMSI

Tide

Celestial 101010101

Trip

Database Name

Points SS J HAWK

Routes

Tracks

DSC

Card

Delete OK

99 Available 1 Used

Adding a Directory Entry

To Review a Call or Log Entry:

1. From the DSC tab of the Main Menu and the "Call List" or "Log" tab highlighted, press UP or DOWN on the **ARROW KEYPAD** until the call you want to review is highlighted.
2. Press **ENTER** to select the call.

DSC Item Review

The DSC Item Review operates similarly to the Distress Page and Position Report Page. This page has the additional option to 'Delete' the displayed call. From the DSC Entry Review, you can use the option buttons 'Delete' the entry, or 'Create Wpt' and create a name for the entry.

DSC Directory

The DSC Directory acts much like a phone book. A user can save up to 100 contacts. The directory lists by Name and MMSI number. Pressing **ADJ/MENU** from this page allows you to 'Delete' a highlighted entry or 'Delete All' entries.

To add a new Directory entry:

1. Highlight the 'New Item' button and press **ENTER**. The Directory Item Review window allows you to input information of a known contact.
2. Highlight the MMSI, Name, or Comment field and press **ENTER**.
3. Press UP/DOWN on the **ARROW KEYPAD** or **DATA ENTRY** keys to enter the numbers/letters.
4. Press **ENTER** to accept the entry.
5. Highlight the 'OK' button and press **ENTER** to accept the entry or highlight the 'Delete' button 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 input 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.

DSC Setup Tab

Garmin chartplotters have the ability to turn DSC 'On' or 'Off'. This option is beneficial for users who have more than one GPS chartplotter. If you want only DSC to display on a particular chartplotter, turn DSC off on the remaining Garmin chartplotters that support DSC.

A user also has the ability to simulate a Distress Call or a Position Report on this page while the unit is in Simulator mode (see page 69). Choose either the 'Sim Dstrs Call' or 'Sim Posn Rpt' buttons to simulate a Distress Call or a Position Report. This is helpful for practice before connecting to the real system. The Distress Call simulator also helps to check if alarms are working properly.

Using the NAV Key

The receiver of a Distress Call or Position Report can quickly navigate to the caller using the NAV button. Once the call is logged, press the **NAV** button and select to Go To the MMSI number or the Name of the caller.

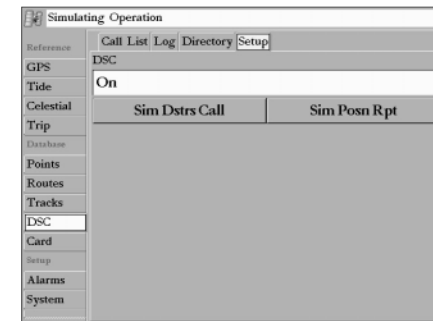
Card Tab— interface control for saving waypoints, routes and tracks to a data card. Data cards must be in Slot 1 (top slot) to save user data. When data is saved to a data card, it may be exchanged with other compatible units and Garmin's MapSource PC program.

To transfer data to/from a data card:

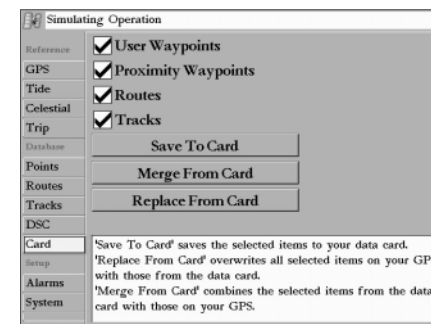
1. Insert the data card. If there is already user data on the card, highlight 'Manage User Card' and press **ENTER**. From the 'Card' tab, select the checkbox next to each type of item you want to transfer.
2. Highlight 'Save To Card' and press **ENTER** to save the selected items to the data card.
3. If transferring data from the card to the unit, highlight 'Merge From Card' and press **ENTER** to combine the selected items with those of your GPS. highlight 'Replace From Card' and press **ENTER** to overwrite all selected items on your GPS.
4. A 'Transfer Complete' message appears once the data has been transferred. Press **QUIT**.

Reference

Main Menu: DSC/ Card Tabs



*DSC Setup
(Simulator Mode shown)*



Card Tab

Reference

Main Menu: Alarms Tab

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

*Main Menu—Alarm Tab
(System Submenu)*

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

*Main Menu—Alarm Tab
(Nav Submenu)*

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

*Main Menu—Alarm Tab
(Sonar Submenu)*

Alarms Tab— contains setting for the unit's alarms. The Alarm tab consists of three default submenu tabs: System alarms, Nav alarms, and Sonar alarms. Alarms messages appear in red across the Status Bar or changes a Data Field if that field displays alarm related data (i.e. Depth, Voltage, etc.). Press **QUIT** to acknowledge an alarm message. The Status bar and Data Field will remain red while the alarm condition persists.

System Alarms

- Clock – provides an alarm for the system clock. Enter a time in the time field and turn the alarm on and off from the control field menu. Remember to enter alarm times in the same time format (UTC or local) you're using for your system. The unit must be on for the clock alarm to work.
- Battery – sets an alarm to sound when the battery is reaching a critical state of discharge.
- GPS Accuracy – sets an alarm to sound when the GPS position accuracy falls outside the user-set value.

Nav Alarms

- Anchor Drag – sets an alarm to sound when you've exceeded a specified drift distance. Enter a value in the distance field and use the control field to turn the alarm on and off.
- Arrival – sets an alarm to sound when you're a specified distance or time away from a destination waypoint. Enter a distance radius or time for sounding the alarm and use the control field to set the alarm to 'Off', 'Dist' (Distance), or 'Time'.
- Off Course – sets an alarm to sound when you're off a desired course by a specified distance. Enter a distance in the distance field and use the control field to turn the off course alarm on and off.

Sonar Alarms*

- 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. Fish Alarm will only function while using a Garmin Sonar Module.

To set an alarm:

1. Use the **ARROW KEYPAD** to highlight desired submenu tab of the Alarm Tab.
2. Highlight the field below the alarm name you wish activate and press **ENTER**.
3. Change the mode to the desired setting and press **ENTER**.
4. Highlight the next field to the right and press **ENTER**, then enter the desired settings and press **ENTER** to finish.

System Tab— consists of five default submenu tabs; General, Units, Time, Comm, and Network.

General Submenu Tab— controls system settings for beeper, speed filter, languages, system mode, simulator controls, restores factory settings, and displays software version.

The following settings and options are available:

- System Mode – select from ‘Normal’ (Normal Navigation) or ‘Simulator’ (For practice ONLY). To setup the Simulator, select the ‘Setup’ button (appears only in Simulator mode). You may also control the Speed and Track from the Compass or Highway pages using the ARROW KEYPAD. Press UP/DOWN to increase/decrease speed. Press LEFT/RIGHT to turn. The following options are available for Simulator Setup:

Current Time/Date - enter a simulated date and time.

Speed – lets you enter a simulated speed.

Transducer – lets you simulate using a Depth Only, Temp Only, or Temp/Speed transducer.

Track Control – ‘Auto Track’ steers to the current navigation point. ‘User Track’ allows you to enter a heading in the ‘Track’ field.

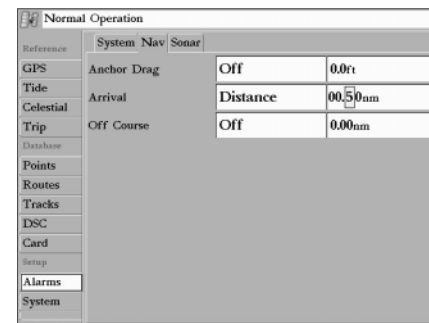
Track – lets you enter a simulated heading.

Set Position – allows to set your location while in simulator mode

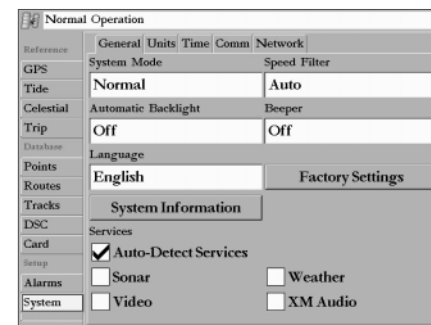
- Speed Filter – averages speed-readings. Choose from ‘Off’, ‘Auto’ (automatically controls filtering), or ‘On’ (allows you to enter a value from 1 to 255 seconds).

Reference

Main Menu: System Tab



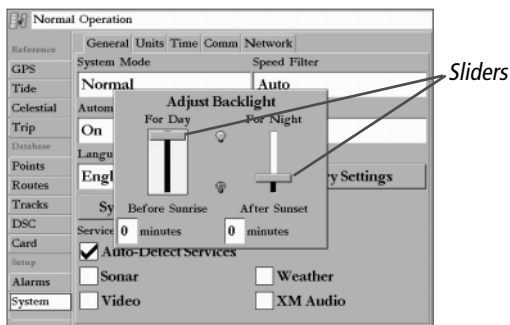
Setting an alarm. Press QUIT to acknowledge and alarm.



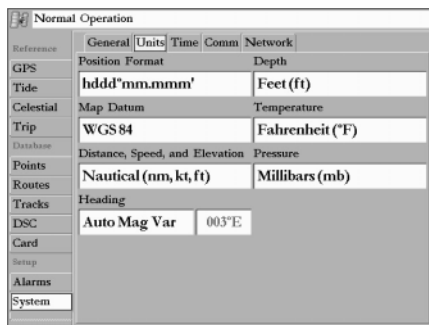
*Main Menu—System Tab
(General Submenu, Normal
Mode)*

Reference

Main Menu: System Tab



Automatic Backlight Adjustment



Main Menu—System Tab
(Units Submenu)

- Automatic Backlight – automatically adjusts the display brightness to a specified level at sunrise and sunset. Offset minutes for Before Sunrise and After Sunset may also be specified.

To adjust the Automatic Backlight settings:

1. With "Automatic Backlight" set to 'On', select the 'Setup' button to the right.
 2. To adjust the backlight levels For Day and For Night, highlight the desired slider and press **ENTER**.
 3. Press UP or DOWN on the **ARROW KEYPAD** to increase/decrease the level and press **ENTER**.
 4. To adjust the offset minutes, select the desired minutes field and press **ENTER**.
 5. Enter the desired offset for Before Sunrise or After Sunset. If left at zero, the unit automatically changes to the specified level at sunrise/sunset. Press **QUIT** to exit the Adjust Backlight window.
- Beeper – controls 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 option buttons are available:

- Factory Settings – restores all settings to Garmin's original setup values for the entire unit.
- System Information – displays the unit's software, basemap version, and electronic serial number.
- Services - As you add optional hardware to the MFD or Garmin Marine Network, additional Services choices may appear automatically. Once a new device has been detected on the Network, unchecking the "Auto-Detect Services" option will speed up the power on sequence. If unchecked and new hardware is added, you must manually check the box to enable the new device.

Units Submenu Tab— defines settings for Position Format, Depth, Map Datum, Temperature, Distance, Speed, and Elevation, Pressure, and Heading.

The following settings are available:

- Position Format – is used to change the coordinate system in which a given position reading is displayed. You should only change the position format if you are using a map or chart that specifies a different position format or wish to use a format you are familiar with. The default format is latitude and longitude in degrees, minutes, and thousandths of a minute (hddd°mm.mmm').

The following additional formats are available:

- hddd.ddddd° – latitude/longitude in decimal degrees only
- hddd°mm'ss.s" – latitude/longitude in degrees, minutes, seconds
- UTM/UPS – Universal Transverse Mercator / Universal Polar Stereographic grids
- British Grid • Dutch Grid • Finnish KKJ27 • German Grid
- India Zones • Irish Grids • Loran TD • Maidenhead
- MGRS • New Zealand • Qatar Grid • RT90
- Swedish Grid • Swiss Grid • Taiwan Grid • User Grid
- W Malayan RSO

For additional information on Loran TD setup, see page 80.

- Depth – lets you select the desired 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 display.
- Map Datum – allows you to manually select the datum reference used to determine a given position. The default setting is 'WGS 84'. The unit automatically chooses the best datum depending upon your chosen position format. Datums are used to describe geographic positions for surveying, mapping, and navigation and are not actual maps built in the unit. Although over 100 datums are available (as listed on pages 78-79), you should only change the datum if you are using a map or chart that specifies a different datum.



WARNING: *Selecting the wrong map datum can result in substantial position errors.*

- Temperature – lets you select the desired 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 display.
- Distance, Speed and Elevation – lets you select the desired 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 – allows you select the desired units of measure for weather readouts in 'Inches Mercury' (in), 'Millibars' (mb), or 'Hectopascals' (hPa). You must be using a Garmin Weather product for this data to display.

Reference

Main Menu: System Tab



The Units tab settings affect how navigation information is displayed on the GPSPMAP 3006C/3010C. When in doubt, seek assistance.

If you are using a map or chart in conjunction with your GPS, make sure the settings under the 'Units' tab of the GPSPMAP 3006C/3010C match that of the map or chart. This information should be displayed somewhere on the map or chart. If the information is not present, contact the map or chart maker to determine what position format, datum, heading and units of measure are being used for the map or chart.



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

Reference

Main Menu: System Tab

The screenshot shows the 'Normal Operation' window with the 'System' tab selected. The 'Time' sub-tab is active, displaying settings for Time Format (12 Hour), Time Zone (US - Central), and Daylight Savings Time (Auto). The current time is 05:00:33 PM and the current date is 03-JUN-04.

Main Menu—System Tab
(Time Submenu)

The screenshot shows the 'Normal Operation' window with the 'System' tab selected. The 'Comm' sub-tab is active, displaying settings for Port 1 (Garmin Data Transfer), Port 2 (NMEA In / NMEA Out), and a 0% progress bar. An 'Advanced NMEA Setup' button is visible at the bottom.

Main Menu—System Tab
(Comm Submenu)

- **Heading** – lets you select the reference used in calculating heading information. You can select from 'Auto Mag Var', 'True', 'Grid' and 'User Mag Var'. 'Auto Mag Var' provides magnetic north heading references which are automatically determined from your current position. 'True' provides headings based upon a true north reference. 'Grid' provides headings based on a grid north reference (and is used in conjunction with the grid position formats described on page 71). 'User Mag Var' allows you to specify the magnetic variation at your current position and provides magnetic north heading references based upon the variation you enter.

To enter a user defined magnetic variation:

1. With the Heading field set to 'User Mag Var', highlight the heading reference field (immediately to the right) and press **ENTER**.
2. Enter the desired magnetic variation at your current position and press **ENTER**.

Time Submenu Tab— displays the current time and date, allows you to adjust the 12 or 24-hour time format, enter a time zone, and adjust for daylight savings to show correct local time.

The following options are available:

- **Time Format** – choose from 12 hour, 24-hour (military), or UTC (also called Greenwich Time) time format.
- **Time Zone** – choose your correct time zone to show correct local time or enter a UTC Offset. The UTC (also called Greenwich Time) offset is how many hours you are ahead or behind the time line. See the table on page 75 for time offsets.
- **Daylight Savings** – choose from 'Auto', 'On', or 'Off' to adjust for daylight savings.

Comm (Communications) Submenu Tab— lets you control the input/output format used when connecting your GPSMAP 3006C/3010C to external NMEA devices, a personal computer, etc. The unit supports two input/output ports. See the Installation Manual for more information on wiring and NMEA information. Individual Port settings are:

Port 1:

- **Garmin Data Transfer** – the proprietary format used to upload/download MapSource data, exchange waypoint, route, track, and proximity data with a PC or another Garmin units. When you select 'Garmin Data Transfer', there are 9 Transfer Modes to choose from: Host, Request Proximity, Request

Routes, Request Tracks, Request Waypoints, Send Proximity, Send Routes, Send Tracks and Send Waypoints.

- 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 may also adjust the NMEA output.
- None – provides no interfacing capabilities.

Port 2:

- 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 may also adjust the NMEA output.
- None – provides no interfacing capabilities.

You may also adjust the NMEA output to enable/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 affects both Port 1 and Port 2 NMEA outputs.

NMEA Interface

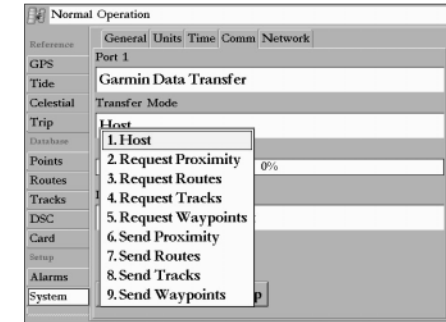
If you are going to interface the GPSMAP 3006C/3010C with another piece of equipment (such as a radio or autopilot), the unit needs to be set to input/output NMEA data. More information on wiring and NMEA data may be found in the Installation Manual.

To activate the NMEA data:

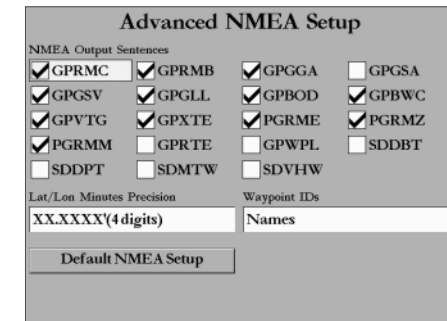
1. On either Port field and press **ENTER**.
2. Select 'NMEA In/NMEA Out' and press **ENTER**.

Advanced NMEA Output Setup

The GPSMAP 3006C/3010C 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. The 'Advanced NMEA Output Setup' page allows you to turn on/off the GPS status (GSA, GSV), Waypoint/Route (WPL, RTE), and the Garmin Proprietary sentences. Check any other equipment's owners manual to see what sentences are required to be enabled for functionality.



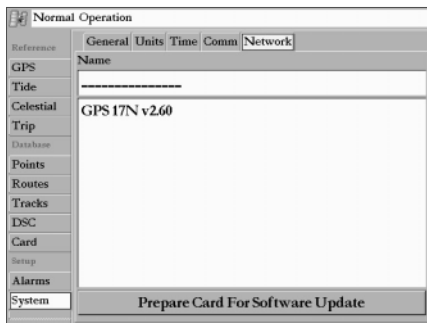
When transferring data between two Garmin units, be sure to always set one to 'Host' and use the other unit to either Send or Request the desired data.



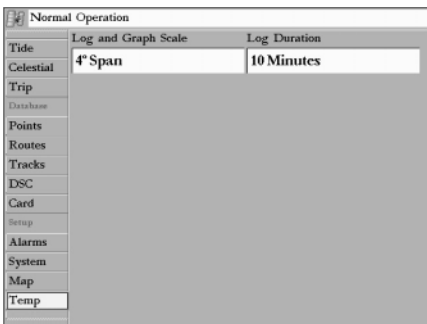
Advanced NMEA Setup Page

Reference

Main Menu: System/ Temp Tabs



Main Menu—System Tab
(Network Submenu)



Main Menu—Temp Tab

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. The Waypoint ID setting lets you choose to output the waypoint identifiers as names or numbers.

To set up the Advanced NMEA page:

1. Highlight 'Advanced NMEA Setup' button and press **ENTER**.
2. To change enable/disable NMEA Output Sentences, highlight the desired sentence and press **ENTER** to check/uncheck. Only checked sentences will output.

Network Submenu Tab— display on/off selections for the devices currently connected to the MFD and Garmin Marine Network. The 'Prepare Card For Software Update' button is to be used for future software releases only. Check the Garmin web site for future updates and announcements.

Map Tab— contains setup options for the Map Page. See page 30.

Temp (Temperature) Tab— displays the water temperature log (if equipped with a temperature transducer/sensor). The chart reads from right to left, so that the most recent temperature measured is displayed on the far right side of the chart. The dotted lines within the chart indicate intervals in the temperature scale and the duration of time. You must be receiving NMEA Sonar temperature data or using a Garmin Sonar Module for the Temperature Graph to display.

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 scroll. Select a duration from 1 minute to 2.5 hours.

Highway Tab— contains setup options for the Highway Page. See page 35.

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

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



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

Offsets for Continental U.S. would be:

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

Appendix B

Messages

The GPSMAP 3006C/3010C uses an on-screen pop-up message system to alert you to unit operating characteristics. Press the **QUIT** key to acknowledge and return to the page you were viewing.

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 have arrived at the destination waypoint.

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

Can't Read User Card— Error reading card. Remove and reinsert. Contact your dealer or Garmin Customer Service (pg. 86) 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 3006C/3010C.

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 3006C/3010C.

Can't Unlock Maps— Data on data card is not unlocked for the unit. Contact your dealer or Garmin Customer Service (pg. 86).

Can't Write User Card— Error reading card. Remove and reinsert. Contact your dealer or Garmin Customer Service (pg. 86) if the problem persists.

Database Error— Internal problem with the unit. Contact your dealer or Garmin Customer Service (pg. 86) 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 1000 contacts. Delete unneeded contacts to add new ones.

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

Lost Remote GPS Connection— 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 data empty data card. 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) has been exceeded.

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

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

Proximity Alarm: <Waypoint>— You have 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 have entered a route name that already exists in memory. Modify the route name or delete the previous route name.

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

Route Memory Is Full, Can't Create Route— 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. Reduce the number of points.

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

Simulating Operation— The unit is in Simulator (practice) Mode. **Do not use for normal navigation!**

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

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

Track Truncated— A complete 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 Slot 1.

Water Temperature Alarm— Sonar has reported a temperature above, below, inside or outside the specified value.

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

Waypoint Memory Is Full Can't Create Waypoint— You have used all 4000 waypoints available. Delete unwanted waypoints to make space for new entries.

Appendix C

Map Datums



See page 71 for changing Map Datums. The 'User' datum is based on a WGS-84 Local datum and is an advanced feature for unlisted or custom datums. To learn more, check your local library or on the world wide web for educational materials on datums and coordinate systems.

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

Appendix C

Map Datums

Kertau 1948	West Malaysia, Singapore
L. C. 5 Astro	Cayman Brac Island
Liberia 1964	Liberia 1964- Liberia
Luzon Mindanao	Luzon- Mindanao Island
Luzon Philippine	Luzon- Philippines (excluding Mindanao Isl.)
Mahe 1971	Mahe 1971- Mahe Island
Marco Astro	Marco Astro- Salvage Isl.
Massawa	Massawa- Eritrea (Ethiopia)
Merchich	Merchich- Morocco
Midway Ast '61	Midway Astro '61- Midway
Minna	Minna- Nigeria
NAD27 Alaska	North American 1927- Alaska
NAD27 Bahamas	North American 1927- Bahamas (excluding San Salvador Island)
NAD27 Canada	North American 1927- Canada and Newfoundland
NAD27 Canal Zone	North Am. 1927- Canal Zone
NAD27 Caribbn	North American 1927- Caribbean (Barbados, Caicos Islands, Cuba, Dom. Rep., Grd. Cayman, Jamaica, Leeward and Turks Islands)
NAD27 Central	North American 1927-Central Amerca (Belize, Costa Rica, El Salvador, Guatemala, Honduras,Nicaragua)
NAD27 CONUS	North Am. 1927- Mean Value (CONUS)
NAD27 Cuba	North American 1927- Cuba
NAD27 Grnland	North American 1927- Greenland (Hayes Peninsula)
NAD27 Mexico	N. American 1927- Mexico
NAD27 San Sal	North American 1927- San Salvador Island
NAD83	North American 1983- Alaska, Canada, Central America, CONUS, Mexico

Nhrwn Masirah	Nahrwn- Masirah Island (Oman)
Nhrwn Saudi A	Nahrwn- Saudi Arabia
Nhrwn United A	Nahrwn- United Arab Emirates
Naparima BWI	Naparima BWI- Trinidad and Tobago
Obsrvtorio '66	Observatorio 1966- Corvo and Flores Islands (Azores)
Old Egyptian	Old Egyptian- Egypt
Old Hawaiian	Old Hawaiian- Mean Value
Oman	Oman- Oman
Ord Srvy GB	Old Survey Grt Britn- England, Isle of Man, Scotland, Shetland Isl., Wales
Pico De Las Nv	Canary Islands
Potsdam	Potsdam-Germany
Ptcairn Ast '67	Pitcairn Astro '67- Pitcairn
Prov S Am '56	Prov So Amrcn '56- Bolivia, Chile, Colombia, Ecuador, Guyana, Peru, Venezuela
Prov S Chln '63	So Chilean '63- S. Chile
Puerto Rico	Puerto Rico & Virgin Isl.
Qatar National	Qatar National- Qatar
Qornoq	Qornoq- South Greenland
Reunion	Reunion- Mascarene Island
Rome 1940	Rome 1940- Sardinia Isl.
RT 90	Sweden
Santo (Dos)	Santo (Dos)- Espirito Santo
Sao Braz	Sao Braz- Sao Miguel, Santa Maria Islands
Sapper Hill '43	Sapper Hill 1943- East Falkland Island
Schwarzeck	Schwarzeck- Namibia
Sth Amrcn '69	S. American '69- Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Venezuela, Trin/Tobago
South Asia	South Asia- Singapore

SE Base	Southeast Base- Porto Santo and Madiera Islands
SW Base	Southwest Base- Faial, Graciosa, Pico, Sao Jorge and Terceira Islands
Taiwan	Modified Taiwan
Timbalai 1948	Timbalai 1948- Brunei and E. Malaysia (Sarawak and Sabah)
Tokyo	Tokyo-Japan, Korea, Okinawa
Tristan Ast '68	Tristan Astro 1968- Tristan da Cunha
User	User-defined custom datum
Viti Levu 1916	Viti Levu 1916- Viti Levu/Fiji Islands
Wake-Eniwetok	Wake-Eniwetok- Marshall
WGS 72	World Geodetic System 72
WGS 84	World Geodetic System 84
Zanderij	Zanderij- Surinam

Appendix D

Loran TD

	General	Units	Time	Comm	Network
Tide					
Celestial					
Trip					
Distance					
Points					
Routes					
Tracks					
DSC					
Card					
Setup					
Alarms					
System					
Map					
Temp					

General	Units	Time	Comm	Network
Position Format	Loran TD	Setup	Feet (ft)	
Map Datum	WGS 84		Temperature	
			Fahrenheit (°F)	
Distance, Speed, and Elevation			Pressure	
	Nautical (nm, kt, ft)		Millibars (mb)	
Heading				
	Auto Mag Var		003°E	

Select 'Loran TD', then highlight the 'Setup' button and press ENTER.

Loran TD System

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

LORAN TD Feature

The LORAN TD (Time Delay) feature eases the transition from using LORAN to using GPS. The GPSMAP unit automatically converts GPS coordinates to LORAN TDs for those who have a collection of LORAN fixes for favorite fishing spots and other waypoints recorded as TDs. You can display your position as a TD or enter waypoints as TDs. The accuracy to be expected from this conversion is approximately thirty meters. When the unit is placed in the LORAN TD format mode, it simulates the operation of a LORAN receiver. Position coordinates may be displayed as TDs, and all navigation functions may be used as if the unit was actually receiving LORAN signals.

Using the LORAN TD Format

When creating new waypoints using LORAN TD coordinates, you must set the correct LORAN chain number and secondary stations in the Setup TD field before storing the waypoint. You must have the correct chain number as well as the secondary station identifiers to use this option correctly. These values varies per coordinate set or geographical location. Failure to enter correct information could result in inaccuracies for the desired destination. After the waypoint is stored in unit 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. Since the GPSMAP unit does not rely on the LORAN signal for navigation, it can reference a different GRI chain and/or secondary stations and still navigate to the location stored in memory.

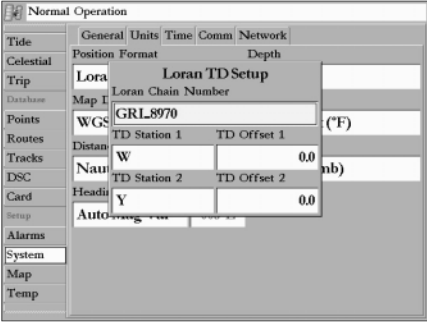
The LORAN Position Format field is located under the Units tab in the Main Menu. The 'LORAN TD Setup' window contains the fields to select the Loran GRI-Chain Number, Primary and Secondary Stations, and TD Offsets.

To setup Loran TD from the Main Menu:

1. Using the **ARROW KEYPAD**, highlight the 'System' tab, then press RIGHT to highlight the 'Units' submenu tab. Highlight the "Position Format" field and press **ENTER**.
2. Highlight 'Loran TD', press **ENTER**, then highlight the 'Setup' button to the right and press **ENTER**.
3. To change the settings of any of the five fields, highlight the field, press **ENTER**, select/enter the desired setting and press **ENTER**.
4. When done, press the **QUIT** key to return to the Main Menu.

If the active GRI Chain, secondary stations or offsets have been changed since the waypoint was created, the waypoint now references the active GRI-chain and secondary stations and adjust the TD coordinates accordingly. Remember that the GPS is not relying on the LORAN signal for navigation and actually converts the TD coordinate to a useful LAT/LON coordinate (in the background) before storing the waypoint to memory or using it for navigation. Because of this the unit can navigate to a TD coordinate anywhere in the world.

For more information on Loran TDs, you may download Garmin's "Loran TD Position Format Handbook" from the Garmin Web site.



Loran TD Setup Window

Appendix E

Specifications/Unit Care

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

Storage - Do not store the unit where exposure to temperature extremes may occur (see left), as permanent damage may result. User information, such as waypoints, routes, etc. is retained in the unit's memory, without the need for external power. It is always a good practice to back up important user data by manually recording it or downloading it to a PC (see pg. 72).

Water Immersion - The GPSMAP 3006C/3010C 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 remove the data card and dry the compartments before reuse. To resolve problems that cannot be remedied using this guide, contact Garmin Customer Support in the U.S.A. at 800-800-1020 or Garmin Europe at 44-1794-519944.

Physical Specifications

Size:	3006C: 6.5" H x 10.3" W x 3.3" D (16.5 x 26.2 x 8.4 cm) 3010C: 8.8" H x 13.1" W x 3.0" D (22.4 x 33.3 x 7.6 cm)
Weight:	3006C: 3.0 lbs. (1.4 kg) 3010C: 5.0 lbs. (2.3 kg)
Display:	3006C: 6.4" diagonal (16.3 cm) 3010C: 10.4" diagonal (26.4 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 122°F (-15°C to 50°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:	25 watts max. at 10v DC
Fuse:	AGC-5 - 5.0 Amp

Installing and Removing Data cards

The GPSMAP 3006C/3010C uses optional Garmin marine BlueChart and MapSource data cards to display digital charts and maps on-screen. Data cards are installed in the card slot located at the bottom right of the unit. Data cards may be installed or removed at any time, whether the unit is on or off.

To install a data card:

1. Open the card door by pressing the locking tab on the door towards the outside (left) of the unit and lifting the door open from right to left.
2. Insert the card into the slot, with the label facing to the right and the handle towards 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 displays on the screen noting the card details when the card has been 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, try removing the card and reinserting it. If the card is still not recognized, contact the Garmin or your Garmin dealer for assistance. Data cards are not waterproof, should not be exposed to moisture or excessive static charges, and should be stored in the case supplied with the card.

To remove a data card:

1. Open the card door by pressing the locking tab on the door towards the outside (left) of the unit and lifting the door open from right to left.
2. Grasp the card handle and pull out firmly.
3. If the unit is on, a confirmation tone sounds when the data card has been removed.

Appendix F

Installing/Removing Data Cards



The first time you insert a data card, the unit takes a few seconds to read the card.

Once the data card has been read, a summary screen appears. Press ENTER/MARK to acknowledge.

Appendix G

Regulatory Information



FCC Compliance

The GPSMAP 3006C/3010C 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, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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 3006C/3010C 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.

Software License Agreement

BY USING THE GPSMAP 3006C/3010C, 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.

Appendix G

Software License Agreement

Appendix G

Limited Warranty

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 Customer Service at one of the numbers shown below, for shipping instructions and an RMA tracking number. The unit should be securely packed with the tracking number clearly written on the outside of the package. The unit should then be sent, freight charges prepaid, to any Garmin warranty service station. A copy of the original sales receipt is required as the proof of purchase for warranty repairs.

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.

Garmin International, Inc.
1200 East 151st Street
Olathe, Kansas 66062, U.S.A.
Phone: 913/397.8200
USA Only: 800/800.1020
FAX: 913/397.0836

Garmin (Europe) Ltd.
Unit 4, The Quadrangle, Abbey Park Industrial Estate
Romsey, SO51 9DL, U.K.
Phone: 44/1794.519944
FAX: 44/1794.519222
www.garmin.com

A

Accessories 6
Accuracy 57
Accuracy Circle 31
Active Route Details 34
Active Track Log 61
ADJ/MENU Key 9
Advanced Map Card Setup 32
Advanced NMEA Output 73
Advanced Setup, Maps 32
Alarm Tab 68
Anchor Drag 68
Arrival Alarm 68
ARROW KEYPAD 9
Aspect, Video 35
AutoLocate 58
Automatic Backlight 70
AutoZoom 31

B

Backlight 13, 70
Basemap 32
Battery Alarm 68
Bearing Line 32
Bearing Pointer 33
Beeper 70
BlueChart 7, 27, 83

C

Card Maps 32
Card Tab 67
Cautions 5
Celestial Tab 60
Chart 31

Chart Colors 30
Cleaning 82
Clock Alarm 68
Communications Tab 72
Compass Page 25, 33
Compass Ring 33
Configuring Main Pages 19, 20
Contrast, Video 35
Copying Routes 50
Course Line 32
Course Up 31
Creating Routes 48, 49
Creating Waypoints 22, 23, 36, 38
Creating Waypoints Graphically 37
Cursor, Map 27

D

DATA/CNFG Key 9
Data Cards 83
Data Card Slots 8
DATA ENTRY 15
Data Entry Keys 10
Data Fields 20
DATA Key 21
Data Transfer 72
Datums 71, 78
Daylight Savings 72, 75
Deep Water Alarm 68
Delete By Symbol 42
Deleting Routes 50
Deleting Tracks 62
Deleting Waypoints 40, 42
Depth 71
Detail 31
Digital data fields 20
Distance Units 71

Appendix H

Index

DSC (Digital Selective Calling) 63
DSC Call List 65
DSC Directory 66
DSC Distress Call 64-65
DSC Entry Review 66
DSC Log 65
DSC Position Report 64-65
DSC Setup 67
DSC Tab 63

E

Editing Routes 51
Editing Waypoints 39
Edit Active Route 34
Elevation Units 71
ENTER/MARK Key 9
Entering Data 15

F

Factory Defaults 20
Factory Settings 70
FCC Compliance 84
FCTN Key 9, 21
Find 54
FIND Key 9, 54
Fish Alarm 68
Following a Route 49
Follow Track 45-46, 62
Fuel 53
Full Screen 21
Functions 19
Function Adjustments 21
Function Windows 21

G

Going to a Destination 44
Go To 44
Go To Point 44
GPS Accuracy Alarm 68
GPS Status Icon 16
GPS Tab 16, 56
Grids 71

H

Heading 72
Heading Line 32
Hide Detail 29
Highway Page 34

I

Initializing 16, 17
Installation 7
Invert Route 50

K

Keypad Usage 9

L

Labels 31
Language 70
Leg Distance 53
Leg Fuel 53
Leg Time 53
Light Sectors 31
Limited Warranty 86
Loran TD 71, 80

M

Magnetic North 72

Main Menu Page 55

Main Menu Tabs 55

Main Pages 18

Manage User Card 67

Manual Conventions 7

MapSource 7, 67, 83

Map Cursor 26, 27

Map Data 7

Map Datums 71, 78

Map Outlines 30

Map Page 26

Map Setup 30

Map Setup Defaults 31

Marking Your Present Position 36

MARK Key 37

Measure Distance 29

Merge From Card 67

Messages 76, 77

MGRS 71

MMSI Number 63, 64

MOB 47

MOB Key 47

Moon Phase 60

Moon Rise/Set 60

Moving Waypoints 40

N

NAV/MOB Key 9, 24, 25, 44, 45, 46, 47, 67

Navigation 24

Nav Alarms 68

NMEA 73

NMEA Interface 73

NMEA Output Setup 73

North Reference 72

North Up 31

O

Off Course Alarm 68

Orientation 31

P

Packing List 6

PAGE Key 9

Planning Routes 53

Position Format 70

Power 13

POWER/VOL Key 9

Pressure 71

Proximity Alarms 43

Proximity Waypoints 43

Proximity Waypoint List 42

Q

QUIT Key 9

R

RANGE Keys 9, 26

Re-Evaluate Route 50

Receiver Status 57

Referencing Waypoints 41

Registration 1

Remote Control 11

Replace From Card 67

Reviewing Routes 50

Reviewing Tracks 62

Reviewing Waypoints 39

Review page 39

Routes, Copying 50

Routes, Creating 48

Routes, Deleting 50

Appendix H

Index

Routes, Editing 51
Routes, Planning 53
Routes, Reviewing 49, 50
Routes, TracBack 45
Route List 50

S

Saturation, Video 35
Saved Tracks 62
Selecting Options 14
Serial Number 1
Serial Number, Electronic 70
Setup Tab 69
Set Initial Position 58
Shallow Water Alarm 68
Shortcut Keys 10
Show Detail 29
Signal Strength Bars 56
Simulator 69
Simulator Set Position 69
Simulator Track 69
Simulator Track Control 69
Simulator Transducer 69
Skyview Orientation 58
Software License Agreement 85
Software Version 70
Soft Keys 10
Sonar Alarms 68
Source, GPS 58
Source, Video 35
Specifications 82
Speed Filter 69
Speed Units 71
Standard, Video 35
Status Bar 16, 17
Stop Navigation 44

Storage 82
Sunrise 53
Sunset 53
Sun Rise/Set 60
Symbol Set 30
Symbol Size 31
System Alarms 68
System Information 70
System Mode 69

T

Temperature 71, 74
Temperature Scale 74
Temperature Tab 69, 74
Temperature Time Duration 74
Tides 58
Tide Stations 59
Tide Tab 58
Time Format 72
Time Offsets 75
Time Zone 72
TracBack 45, 46
Tracks, Deleting 62
Tracks, Reviewing 62
Tracks, Saved 62
Track Color 61
Track Logs 45, 46, 61
Track Record Mode 61
Track Tab 61
Track Up 31
Track Value 61
Trip Tab 61

U

Understanding the Features 12

Units 70
Unit Features 8
User Datum 78
User Waypoint List 41

V

Video Page 35

W

WAAS 57, 58
Warnings 5
WARRANTY 86
Water Immersion 82
Water Temperature Alarm 68
Waypoints, Creating 22, 36, 37, 38
Waypoints, Deleting 40, 42
Waypoints, Editing 39
Waypoints, Manual Entry 38
Waypoints, Moving 40
Waypoints, Naming 22
Waypoints, Proximity 42, 43
Waypoints, Referencing 41
Waypoints, Reviewing 39
Waypoints, Symbol 22
Waypoint List 41
Waypoint Symbols 40

Z

Zoom 26, 34

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 2004 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 190-00371-00 Rev. A