



GPSMAP® 96/96C

portable aviation receiver

pilot's guide



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INTRODUCTION

Thank you for choosing the Garmin GPSMAP 96/96C, an unsurpassed portable aviation receiver that utilizes the proven performance of Garmin GPS, full-featured mapping and navigation for aviation, marine, and automotive applications.

Take a moment now to compare the contents of this package with the packing list on the outside of the box. If any pieces are missing, contact your Garmin dealer immediately.

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. The **Getting Started** section provides information such as an overview of the unit features and how to turn on and adjust the backlight.

The **Basic Operation** section provides you with information about navigation. The **Main Pages** section reviews in detail, the main pages and features.

The **Appendix** contains information such as specifications, optional accessories, and maintenance information. You can also find warranty and FCC information in the Appendix. **Read the Safety Information to learn how to install and use your Garmin GPSMAP 96/96C safely and responsibly.**

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

Manual Conventions

This manual uses the term **Warning** to indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

This manual uses the term **Caution** to indicate a potentially hazardous situation, which, if not avoided, may result in minor injury or property damage. It may also be used without the symbol to alert you to avoid unsafe practices.

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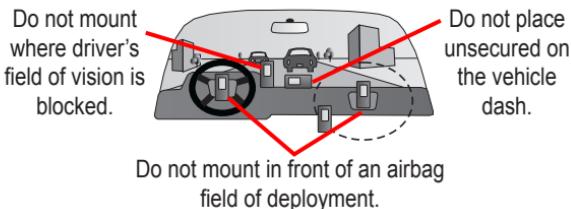
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Warning

Failure to avoid the following potentially hazardous situations could result in an accident or collision resulting in death or serious injury.

When installing the GPSMAP 96/96C in a vehicle, place the unit securely so that it does not interfere with vehicle operating controls or obstruct the driver's view of the road (see diagram).



Always operate the vehicle in a safe manner. Do not become distracted by the GPSMAP 96/96C while driving, and always be fully aware of all driving conditions.

Minimize the amount of time spent viewing the screen of the GPSMAP 96/96C while driving and use voice prompts when possible. Do not enter destinations, change settings, or access any functions requiring prolonged use of the unit's controls while driving. Pull over in a safe and legal manner before attempting such operations.

When navigating, carefully compare information displayed on the GPSMAP 96/96C to all available navigation sources, including information from street signs, visual sightings, and maps. For safety, always resolve any discrepancies or questions before continuing navigation.

Use the electronic chart in the GPSMAP 96/96C only to facilitate, not to replace, the use of authorized government charts. Official government charts and notices to mariners contain all information needed to navigate safely.

When navigating in an aircraft, use the GPSMAP 96/96C only as an aid for VFR navigation. Use terrain and obstacle data only as an aid to situational awareness.

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>.



Caution

Failure to avoid the following potentially hazardous situations may result in injury or property damage.

The GPSMAP 96/96C is designed to provide you with route suggestions. It does not reflect road closures or road conditions, traffic congestion, weather conditions, or other factors that may affect safety or timing while driving.

Use the GPSMAP 96/96C only as a navigational aid. Do not attempt to use the GPSMAP 96/96C for any purpose requiring precise measurement of direction, distance, location, or topography. This product should not be used to determine ground proximity for aircraft navigation.

The Global Positioning System (GPS) is operated by the United States government, which is solely responsible for its accuracy and maintenance. The government's system is subject to changes which could affect the accuracy and performance of all GPS equipment, including the GPSMAP 96/96C. Although the GPSMAP 96/96C is a precision navigation device, any navigation device can be misused or misinterpreted and, therefore, become unsafe.

Map Data Information: One of the goals of Garmin is to provide customers with the most complete and accurate cartography that is available to us at a reasonable cost. We use a combination of governmental and private data sources, which we identify in product literature and copyright messages displayed to the consumer. Virtually all data sources contain inaccurate or incomplete data to some extent. In some countries, complete and accurate map information is either not available or is prohibitively expensive.

NOTICE TO DRIVERS IN CALIFORNIA AND MINNESOTA: State law prohibits drivers in California and Minnesota from using suction mounts on their windshields while operating motor vehicles. Other Garmin dashboard or friction mounting options should be used. Garmin does not take any responsibility for any fines, penalties, or damages that may be incurred as a result of disregarding this notice. (See California Vehicle Code Section 26708(a); Minnesota Statutes 2005, Section 169.71.)

Caring for the GPSMAP 96/96C

The GPSMAP 96/96C case is constructed of high quality materials and does not require user maintenance except cleaning.

Cleaning the Case

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

Cleaning the Screen

The GPSMAP 96/96C screen should be cleaned using a soft, clean, lint-free cloth. Water, isopropyl alcohol, or eyeglass cleaner can be used if needed. If these are used, apply the liquid to the cloth and then gently wipe the screen with the moistened cloth.

Storage

Do not store the GPSMAP 96/96C where prolonged exposure to temperature extremes can occur (such as in the trunk of a car) as permanent damage can result. User information, such as waypoints and routes are retained in the unit's memory without the need for external power. It is always a good practice to back up important user data by manually recording it or downloading it to a PC (transferring it to MapSource).

Water Immersion

The GPSMAP 96/96C is waterproof to IEC Standard 60529 IPX7. It can withstand immersion in 1 meter of water for 30 minutes. Prolonged submersion can cause damage to the unit. After submersion, be certain to wipe and air dry the unit before reuse or charging.

GETTING STARTED

Unit Overview

The GPSMAP 96/96C is an all-in-one, versatile aviation, automotive, and marine navigator- perfect for air, land, or water. This portable GPS navigator features a 256-color TFT screen, a built-in basemap, Jeppesen aviation database, and auto routing to provide you with automatically generated turn-by-turn directions.



IN/OUT Zoom Keys

- From the Map Page, press to zoom in or out.
- From any other page, press to scroll up or down a list.

DIRECT TO ►/NRST Key

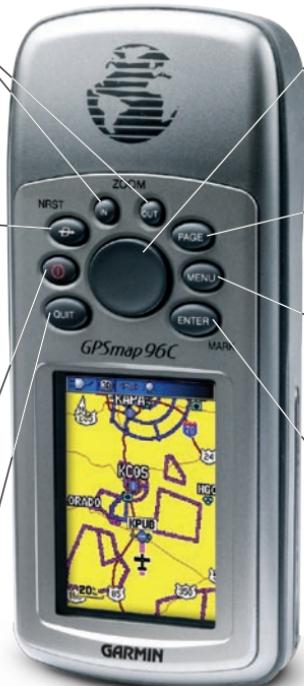
- Press and release at any time to view the Go To Pages for a destination when in Aviation Mode or the Find Menu when in Automotive and Marine Modes.
- Press and hold for Nearest Airports (Aviation) Recent Finds (Automotive) or MOB (Marine) Mode.

POWER/BACKLIGHT Key

- Press and Hold to turn unit On/Off
- Press and Release to adjust backlighting (Contrast - GPSMAP 96).

QUIT Key

- Press and release to cancel data entry or exit a page.



ROCKER Key

- Move Up/Down or Right/Left to move through lists, highlight fields, on-screen buttons, icons, enter data or move the map panning arrow.

PAGE Key

- Press to cycle through the main pages.
- Press and hold to change the usage mode.

MENU Key

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

ENTER/MARK Key

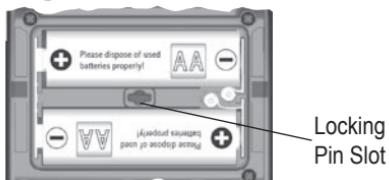
- Press and release to enter highlighted options, data or confirm on-screen messages.
- Press and hold at any time to mark your current location as a waypoint.

Installing the Batteries

The GPSMAP 96/96C operates on two AA batteries (not included), which are located in the back of the unit. Alkaline or NiMH batteries (see [page 103](#) for setting the battery type) can be used. Stored data is not lost when batteries are removed.

To install batteries:

1. Remove the battery cover from the back of the unit. Turn the D-Ring 1/4 turn counter-clockwise and then pull.
2. Insert the batteries, observing the proper polarity. A polarity diagram can be found molded into the battery compartment.
3. Reinstall the battery cover by reinserting the locking pin in the back of the unit. Turn the D-Ring 1/4 turn clockwise to lock in place.



Battery Compartment

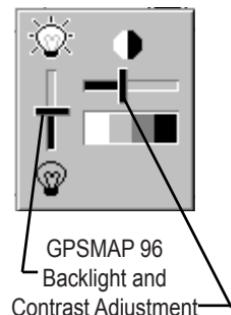


Adjusting the Backlight and Contrast

You may want to adjust the backlight to see the screen better. You can also adjust the contrast if using the GPSMAP 96.

To adjust the backlight level:

1. Press and quickly release the **POWER** key.
2. Press the **ROCKER** up to increase the brightness or down to decrease the brightness.
3. Press **ENTER** or **QUIT** to close.



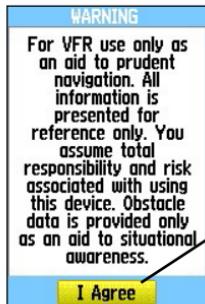
To adjust the contrast level: (GPSMAP 96 only):

1. Press and quickly release the **POWER** key.
2. Press the **ROCKER** to the right to increase the contrast or to the left to decrease the contrast.
3. Press **ENTER** or **QUIT** to close the Backlight/Contrast adjustment window.

BASIC OPERATION

Turning On the GPSMAP 96/96C

The first time you power up your new GPSMAP 96/96C, the receiver must collect satellite data and establish its present position. To ensure proper initialization, the GPSMAP 96/96C is shipped from the factory in AutoLocate mode, which allows the receiver to “find itself” anywhere in the world. Before you turn on the unit to start initialization, be sure that it has a clear and unobstructed view of the sky to receive satellite signals.



Warning and Information Page

Press **ENTER** to acknowledge and show the Satellite Page.

To turn On and Off the GPSMAP 96/96C:

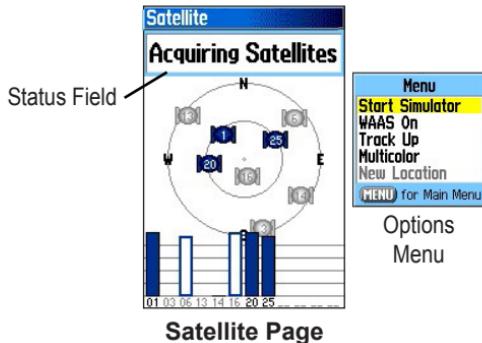
1. Press and hold the Power key. When the unit powers on, a tone sounds, and the first page appears.
2. After a few seconds, a Warning/Information Page appears. To acknowledge that you have read and understand the warning, press **ENTER** to continue.
3. To turn off the GPSMAP 96/96C, press and hold the **POWER** key again.



WARNING: When you agree with the statements on the Warning Page it is assumed that you understand that the GPSMAP 96 and GPSMAP 96C are intended as aids to navigation only. That the navigation information and obstacle data provided by the GPSMAP 96 and GPSMAP 96C is intended as an aid to situational awareness only. That it does not take precedence over accepted practices for safe navigation using Visual Flight Rules and that you have accepted the responsibilities and risks associated with using these devices.

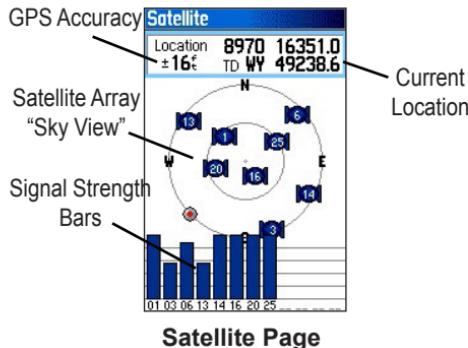
Initializing the GPSMAP 96/96C

As soon as you turn the GPSMAP 96/96C on, it begins searching for satellites in your area and should acquire a fix within a few minutes. When you have cycled through the Start Up and Warning Pages, the Satellite Page appears. At the top of the screen, the unit shows the status as “Acquiring Satellites.” A sky view array depicting the approximate location of overhead satellites is shown in the center of the page. When a signal of sufficient strength is received the satellite is identified by its assigned number. The sky view represents a theoretical dome directly over your current location with a pointer to indicate orientation. While viewing the Satellite Page, a signal strength bar for each satellite the unit is trying to acquire appears at the bottom of the screen with the satellite numbers shown below each bar.



The progress of satellite acquisition is shown in three stages:

- **No signal strength bars**—the receiver is looking for the satellites.
- **Hollow signal strength bars**—the receiver has found the indicated satellites and is collecting data.
- **Solid signal strength bars**—the receiver has collected the necessary data and the satellites are ready for use.

**Satellite Page**

Press **MENU** to view options for Simulator, WAAS, Track Up/North Up, Multicolor screen, and New Location to use the Map Page to establish your approximate location. Once the receiver has collected information from and is fixed on at least three satellites, the unit is “Ready to Navigate” and you can advance to the Map Page.

Status Bar

At the top of each page, a Status Bar provides the current status for several unit features that are not otherwise noticeable when operational.



System Symbols



Satellite Status Symbols



Navigation Mode Symbols



Changing Usage Modes

To switch usage modes:

1. Press and hold PAGE.
2. Use the **ROCKER** to select either **Aviation**, **Automotive**, or **Marine**, and press **ENTER**.

On-Screen Messages

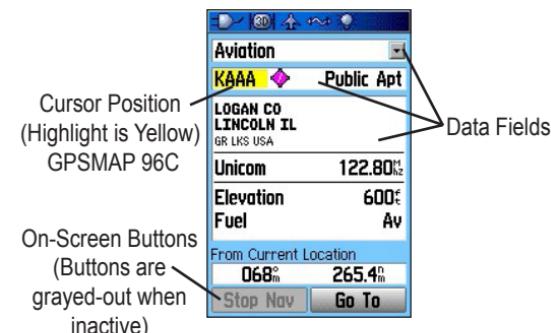
Whenever a significant event in unit operation occurs, an on-screen message appears to advise you. In many instances a remedy is also provided. Pressing **ENTER** acknowledges and closes the message window.

You can use the Message Log feature to record those messages for later review. You can also select only certain types of messages for storage on the Message Log. A message filter allows you to identify the types of messages for review.

For more detailed information about using the Message Log feature, refer to [page 122](#).

How to Operate Unit Features

The GPSMAP 96/96C unit's advanced keypad system is designed to allow quick, convenient selection of navigation options and data entry. Many keys on the keypad have dual functions, when pressed and released they perform a primary function and when pressed and held they perform a secondary function. Many keys change functions when a particular feature page is shown. When a field is selected on the screen, it is highlighted. Selection is controlled by the **ROCKER**.



The following features are referred to throughout this manual.

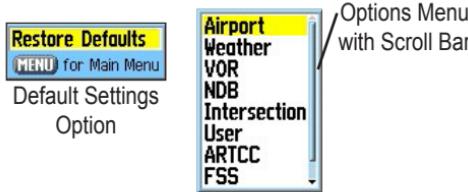
Cursor—the highlighted area on the screen that can be moved up/down/left/right with the **ROCKER** to select individual fields. Moving the cursor makes a selection, begins data entry, or scrolls through a list.

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

On-Screen Button—use the **ROCKER** to highlight a button and press Enter to select the action.

Scroll Bar—when viewing a list of items too long to be shown 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 shown. The height of the scroll bar indicates the number of items in the list. To scroll through a list, press up or down on the **ROCKER**.

Default—a factory set system format is followed unless you change a setting. For example, the default setting for speed readings in Marine Mode 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** option is selected.



On-Screen Operating Features

Selecting Options and Entering Data

You can select and start options and enter data to customize your GPSMAP 96/96C to fit your personal needs. This requires movement of the cursor, which is identified in this manual as highlighting, selecting, or choosing an item in a list or a field on the screen. Use **ENTER** and **ROCKER** to select options, enter names and numbers in data fields, and start your selections.

To select an option: use the **ROCKER** to highlight it and press **ENTER** to start.



Options Menu

Options that are grayed-out are not available.

3. Press **ENTER** to start the feature. If another window appears with more options, select the an option, and press **ENTER** again.
4. To exit a menu or return to the previous setting, press **QUIT**.

The **QUIT** moves backwards through your steps. When pressed repeatedly, the **QUIT** returns to the main page you started from.



To select and start an option:

1. With any page shown, press **MENU**. An Options Menu appears with a list of optional features for that page.
2. Use the **ROCKER** to move the cursor up or down the menu to highlight your selection.

To select and start an on-screen button:

Use the **ROCKER** to highlight the on-screen button, and press **ENTER**.

To enter data in a data field:

1. Use the **ROCKER** highlight the data field, and press **ENTER** to start the field.
2. Press up or down on the **ROCKER** to select characters. Press right to move to the next character field or press left to move back to the previous character field. If there are two lines of data, keep pressing right to drop down to the next line.
To clear the entire data field, move the cursor to the left-most character field and press left once more on the **ROCKER**.
3. After entering the data, press **ENTER** to confirm the change.

4. To save the waypoint and exit the New Waypoint Page, highlight **OK**, and press **ENTER**.

Or

To cancel the waypoint and exit the New Waypoint Page, highlight **DELETE**, and press **ENTER**.

Not all fields are programmable, such as the date and time. When you are on a page with fields that are not selectable, the cursor skips over them.

Using Additional Map Data

Optional MapSource CD-ROMs enhance the versatility of your GPSMAP 96/96C. With optional MapSource City Select data, you can view listings of nearby restaurants, lodging, shopping centers, attractions and entertainment, and even retrieve addresses and phone numbers for any listed location. With optional BlueChart data, you can access marine navaids, wrecks, obstructions, and anchorage locations.

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

To aid in learning to use the GPSMAP 96/96C, please use the Simulator Mode. Simulator Mode is also helpful for practicing with the unit indoors or when no satellite signals are available. All waypoints and routes created in Simulator Mode are retained in memory for future use.

Simulator Mode

The main purpose of using a GPS receiver is for navigating to a known position. To get a feel for navigating with the GPSMAP 96/96C, it is a good idea to practice navigation in Simulator Mode.



Start Simulator Option



WARNING: Do not attempt to navigate using Simulator Mode, the GPS receiver is turned off. Any Satellite Signal Strength Bars or navigation shown are only simulations and do not represent the strength of actual satellite signals or route navigation.

To put the unit into Simulator Mode using the Main Menu:

1. Press **MENU** twice to show the **Main Menu**.
2. Highlight the Setup icon, and press **ENTER** to show the **Setup Menu**.
3. Highlight the System icon, and press **ENTER** to show the **System Setup Page**.
4. On the System Setup Page, highlight the "GPS" field, and press **ENTER**.
5. Select **Simulator**, and press **ENTER**. Press **QUIT** to return to your previous page.



To put the unit into Simulator Mode using the Satellite Page:

1. Press the **PAGE** repeatedly until the Satellite Page is shown.
2. Press **MENU** to open the **Options Menu**.
3. Highlight **Start Simulator**, and press **ENTER**.



To enter a New Location:

1. From the GPS Options Menu, select **New Location**.
2. Select **Use Map or Identifier**, and press **ENTER**.

To find an aviation destination and simulate navigation in Aviation Mode:

1. Press up on the **ROCKER** to increase the simulated speed. The aircraft symbol now begins moving on the magenta route line.
2. Press **QUIT** or **PAGE** to return to the Map Page. Press in or out to adjust the zoom level. Observe the movement of the aircraft symbol  as the unit simulates navigation. Press **PAGE** or **QUIT** to view the simulated navigation on the other main pages.

Using DIRECT TO Key

The GPSMAP 96/96C includes an internal Jeppesen® database, and memory for up to 1,000 user-created waypoints. The GPSMAP 96 accepts 22MB, while the GPSMAP 96C accepts 118MB of MapSource data. The Jeppesen database provides position and facility information for airports, VORs, NDBs, and more. Updates to the Jeppesen database are available every 28 days online (www.garmin.com). The update program is designed to operate on

Windows®-compatible PCs and requires the USB Cable to connect to a PC. The following information is provided from the Jeppesen database:

Airport—* identifier, facility name, city/state/country, position (latitude/longitude), field elevation, available fuel types, runway designations/layout, runway surface(s), runway length(s), runway width(s), runway lighting, runway traffic pattern direction data, communication frequencies, and published approaches.

Weather—associated with an airport (ASOS, ATIS, and AWOS).

VORs—* identifier, facility name, city/state/country, position (latitude/longitude), frequency, service volume (high, low, terminal), and type (such as VOR-DME, TACAN, and VORTAC).

NDBs—* identifier, facility name, city/state/country, position (latitude/longitude), and frequency.

Intersections—identifier, nearest VOR, radial and distance from nearest VOR, position (latitude/longitude), and region/country.

ARTCC—Air Route Traffic Control Centers.

Airspace—boundaries (Class B, Class C, Class D, Control Zones, SUAs, and MOAs), controlling agency, and vertical boundaries.

FSS—Flight Service Stations.

User Waypoints—name, symbol, position (lat/lon), elevation, and comment.

In Aviation Mode, press **DIRECT TO ➤** to show the Go To Page, which allows you to select an airport or navaid, a recently (previously) used waypoint, or a user-created waypoint as your destination.

When a Go To or route is currently in use, pressing **DIRECT TO ➤** key shows a detailed information page for the active waypoint.

In Marine or Automotive Mode, press **DIRECT TO ➤** to show the Find menu, which allows you to select a destination waypoint.

Also, in Marine Mode, pressing and holding **DIRECT TO ➤** creates a Man OverBoard waypoint and starts navigating to that point.

* Symbology used for NDBs, VORs, and airports are consistent with those used on a sectional chart.

Go To Aviation

The Go To Aviation Page shows the (Airport) identifier, CTAF or tower frequency, facility name, city/state/country, available fuels, field elevation, distance and bearing from your current location, and airport position (latitude/longitude).



Aviation Mode Go To Page

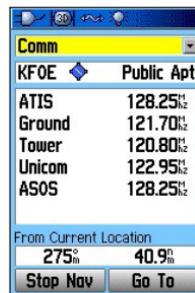
To Go To an airport or navaid:

1. Press **DIRECT TO ►** to show the Go To Page. If Aviation is not highlighted, press the **ROCKER** until the top field is highlighted. Press the **ROCKER** right or left until Aviation is selected.
2. Use the **ROCKER** to enter the airport, facility name, intersection, VOR or NDB. Press up and down to change the highlighted character and to move to the next character field. As you scroll through the characters the GPSMAP 96/96C shows any database entries with the same characters you have entered to that point. If more than one entry exists in the database for the characters you have entered, a window appears listing the entries. Use the **ENTER** and **ROCKER** keys to select a waypoint from the duplicate list.
3. Press **ENTER** when the waypoint is shown.
4. With the on-screen **Go To** button highlighted, press **ENTER**. A course is plotted from your present position to the selected destination waypoint.

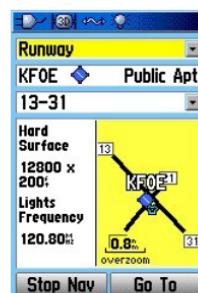
Go To Comm

The Go To Comm Page contains identifier, frequency, and frequency type. Available frequency types are: ATIS, Pre-taxi, Clearance, Ground, Tower, Unicorn, Multicom, AWOS, ASOS, Departure, Approach, Arrival, Class B, Class C, Class D, TMA, CTA, and TRSA.

As you view frequencies for various airports, some appear with an asterisk (*). This denotes a frequency with usage restrictions.



Comm Identifier



Runway Identifier

To view usage restrictions for a communication frequency:

1. Select **Comm** with the **ROCKER** in the top field. Use the **ROCKER** to highlight any frequency with usage restrictions (as denoted by an asterisk), and press **ENTER**. A Usage Restrictions Page appears describing the restrictions for the selected frequency.
2. To return to the **Comm** information page, press **ENTER**.

Go To Runway

The Go To Runway Page shows identifier, runway designations, runway layout (map), traffic pattern direction, surface type, lighting frequency, length, width, distance and bearing from your current location, and airport position (latitude/longitude). Use the third field to change between multiple runway information.

Go To Approach

The Go To Approach Page shows identifier, approach name, final approach fix (FAF), and missed approach point (MAP), distance and bearing from your current location, and airport position (latitude/longitude). Available approach types include ILS, localizer, RNAV, GPS, VOR, VOR/DME, and NDB. Approach name, final approach fix (FAF), and missed approach point (MAP) appear ONLY if the airport has a published approach.

When viewing information for Runway or Approach, use the **ROCKER** to highlight the runway designation or approach name, and press **ENTER**. Then press up or down on the **ROCKER** to scroll through available runways/approaches. Press Enter to view additional information for a runway/approach.

Select Approach

The Select Approach option replaces a destination airport with the sequence of waypoints for the selected approach. Keep in mind that the airport must have a published approach (GPS, RNAV, VOR, NDB, localizer, or ILS) and only the final course segment (from final approach fix to missed approach point) of the published approach is available in the GPSMAP 96/96C.



Approach Identifier



NOTE: When using a route, and on the final leg of the route to the destination airport, the Select Approach option allows you to quickly retrieve and select available approaches. This option overrides your current route. The original route is still available for later use. The approaches provided in the Jeppesen database are for monitoring purposes only. The GPSMAP 96/96C is not an IFR-approved instrument and should not be used as a primary source of navigation guidance in instrument conditions.

To select an approach using the Go To page:

1. Press **DIRECT TO ➤** to show the Go To Page.
2. Use the **ROCKER** to highlight **Approach**.
3. Use the **ROCKER** to select the approach from the third field, and press **ENTER**.
4. Use the **ROCKER** to select **Vectors** or **FAF**, and press **ENTER**. The GPSMAP 96/96C removes the destination airport from the Go To and replaces it with the approach waypoints.

To select an approach using the Active Route Page:

1. Access the Active Route Page, and press **MENU**.
2. Use the **ROCKER** to choose **Select Approach**.
3. Select an Approach from the window.
4. Indicate **Yes** or **No** in the “Vectors?” window.

To cancel vectors and/or an approach from the Go To Approach Page:

1. Access the Go To Approach Page.
2. Press **MENU**. Highlight **Cancel Approach** or **Cancel Vectors**, and press **ENTER**.

To cancel vectors and/or an approach from the Active Route Page:

1. Access the Active Go To Page, and press **MENU** to open the Options Menu.
2. Highlight **Cancel Vectors**, and press **ENTER** to navigate directly to the FAF.

Or

Highlight **Cancel Approach** or **Select Approach**, and press **ENTER** to change.

Go To User and Recent

To Go To a recently used waypoint or user-created waypoint:

1. Press **DIRECT TO ▶** to show the Go To Page. Use the **ROCKER** to highlight the first field. Press the **ROCKER** to the right or left until **Recent** or **User** is selected.

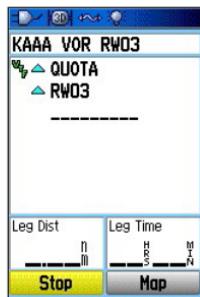


User List for
Waypoints

2. Use the **ROCKER** to highlight a waypoint from the list. From **User**, you can also select the top waypoint name line and then spell out the waypoint name using **ENTER** and the **ROCKER**.
3. Press **ENTER** when a waypoint is highlighted. With the on-screen **Go To** button highlighted, press **ENTER**. A course is plotted from your present position to the selected destination waypoint.

Understanding Vectors

The Vectors option that appears at the last step of selecting an approach determines how you navigate to the final approach waypoint in the approach.



Active Approach Page

If you select Vectors, the GPSMAP 96/96C creates an extension of the final course, beyond the final approach waypoint in the database (final approach fix [FAF]). The GPSMAP 96/96C provides no guidance to the inbound course. The course deviation needle

on the graphic HSI remains off-center until you are established on this final approach course. The Map Page shows an extension of the final approach course using a bold magenta line. The HSI automatically slews (rotate to show the direction) to the inbound course. On the Active Route (or Active Approach) Page, a Vector to Final symbol appears adjacent to the first approach waypoint.

If No is selected for the Vectors? or the Go to FAF option is selected from the Approach Go To Page, the GPSMAP 96/96C creates a straight-line course directly to the first waypoint in the approach (from wherever you are when you initiate the approach). This works much like any other route with course guidance from point-to-point and a turn usually required as you cross each waypoint.

Go To Page Options Menu

The available options are described below. In the sections following, some options, such as Show Details, also have instructions detailing how to use the option.

To access the Go To Page Options Menu:

1. Press **DIRECT TO ▶**. The Go To Page opens
2. Press **MENU**.



Go To Options Menu

Select Approach—shows a window with the available approaches for that specific airport. This option is only available if the airport has published approaches.

Find More—directs you to the Find Menu.

Find Near Here—allows you to find other places near the waypoint or point of interest specified.

Declutter On/Off—activates three layers of map detail. Select this option multiple times to increase or decrease mapping detail. This option is only available on the Runway and Approach Go To Pages.

Show On Map—takes you to the map page and zooms onto the location.

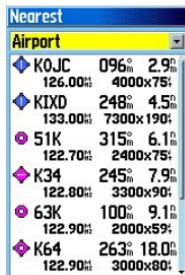
Project Waypoint—allows you to create a waypoint at a specific distance and bearing from the location selected.

Set Proximity—allows you to establish an alarm circle in a user defined distance around a waypoint.

Add To Route—places the location in an existing route or creates a new route with the location as the destination.

Nearest Pages Overview

In Aviation Mode, the Nearest function is accessed by pressing and holding **DIRECT TO ➤**, providing detailed information on the nearest airports, airport weather sources, VORs, NDBs, intersections, and user waypoints within 200 miles of your present position. You can also access information regarding the five nearest FSS (flight service station) and center (ARTCC) points of communication, along with their associated frequency(s).



In Marine and Automotive Modes, **DIRECT TO ➤** operates as a Find key, opening the Find Menu so you can easily search the stored Waypoints, Cities,

Aviation, and Recent Find. Loading MapSource data provides additional search options.

Airport—nine nearest with identifier, bearing to and distance, length of longest runway, and common traffic advisory (CTAF) or tower frequency.

Wx (Airport Weather Sources)—nine nearest airport weather information sources, including AWOS, ASOS, and ATIS.

VOR (VHF Omnidirectional Radio Beacons)—nine nearest with identifier, facility type (symbol), bearing to and distance, and frequency.

NDB (Non Directional Beacons)—nine nearest with identifier, facility type (symbol), bearing to and distance, and frequency.

INT (Intersection)—nine nearest with identifier, bearing to and distance.

User (Waypoints)—nine nearest with name, bearing to and distance.

ARTCC (Air Route Traffic Control Center)—five nearest with bearing to and distance and frequency(s)

FSS (Flight Service Station)—five nearest with bearing to and distance, frequency(s) and VOR (for duplex operations)

Airspace—up to nine (depending on number of alerts provided) with name, time to entry (when applicable), and status.

To view the Nearest Pages in Aviation Mode:

1. Press and hold **DIRECT TO** .
2. Use the **ROCKER** to select the category in the top field.



NOTE: When an airspace alert is shown, press and hold **DIRECT TO**  to automatically show nearest airspace information. Press and hold **DIRECT TO**  a second time to quickly show the nearest airports list. Additional information for airports, navaids, and user-created waypoints is available from the information pages.

To view additional information for a nearby airport, navaid, or user waypoint:

1. Show the nearest pages, and select a category as described above.

Nearest			
Airport			
◆	KOJC	096°	2.9"
	126.00Hz	4000x75	
◆	KIXD	248°	4.5"
	133.00Hz	7300x190	
●	51K	315°	6.1"
	122.70Hz	2400x75	
◆	K34	245°	7.9"
	122.80Hz	3300x90	
●	63K	100°	9.1"
	122.90Hz	2000x59	
◆	K64	263°	18.0"
	122.90Hz	3000x80	

Nearest Airport List

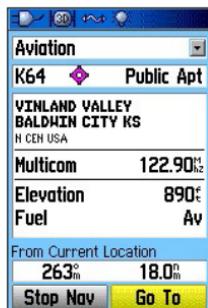
2. Use the **ROCKER** to highlight a waypoint on the list, and press Enter. The corresponding waypoint information page appears.

On airport information pages, use the **ROCKER** to select a category from the top field to show the airport data.

- Press **QUIT** to return to the Nearest Pages. You can also highlight any one of the on-screen buttons to perform that action, such as **Delete**, **Map**, or **Go To**.

To select a nearby waypoint as your destination:

- Show the nearest pages and select a category.
- Use the **ROCKER** to highlight a waypoint, press **DIRECT TO ➤**, highlight **Go To**, and press **ENTER**.



Go To page for selected Airport

Setting Airport Criteria

From the Nearest Airport selection, an options window allows you to filter out airports that do not meet a defined criteria. This allows you to only show airports with a surface type and sufficient runway length.



To enter airport criteria:

- Press and hold **DIRECT TO ➤**, and select the **Airport** category.
- Press **MENU** to show the Options Menu. **Set Airport Criteria** appears, then press **ENTER**. The current settings for runway surface and minimum runway length appears.



3. With the runway surface field highlighted, press **ENTER**. Use the **ROCKER** to select the surface type, and press **ENTER**.
4. Highlight the minimum runway length field, and press **ENTER**. Use the **ROCKER** to enter the minimum acceptable runway length. Press **ENTER**.



NOTE: Use caution when changing the nearest airport criteria. In an emergency, a short runway is still typically preferable to an off-field landing. If you set the runway length too high or exclude many runway surfaces, you may not be alerted to a nearby airport that otherwise would be listed.

Any—shows any runway, regardless of surface type.

Hard Only—shows only runways with a concrete, asphalt or similar surface.

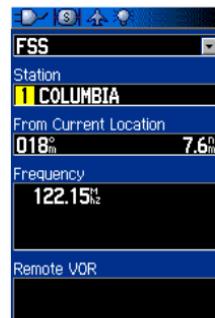
Hard or Soft—shows all runways except water landing facilities.

Water Only—shows only water landing facilities.

Minimum Runway Length—allows you to enter a specific length for the shortest runway allowed.

Viewing Communication Frequencies

The Nearest Pages list up to five nearest flight service station (FSS) and air route traffic control center (ARTCC) points of communication. The closest communication point—along with frequency(s), bearing to and distance—is shown first, with additional points available when selected. For duplex operation, the corresponding VOR is listed (by identifier) and the transmit and receive frequencies are denoted by a TX and RX respectively.



Communications Frequencies Page

To view additional communication frequencies:

1. Press and hold **DIRECT TO ➤** to open the Nearest Page.
2. Use the **ROCKER** to select the ARTCC or FSS category.
3. Press the **ROCKER** down to highlight the Center or Station field (depending which category you are on), and press **ENTER**.
4. Select the numbered item from the list and press **ENTER** to show the communication information. The lowest numbers on the list are the closest comm points.



Viewing Airspace Information

When an airspace alert is provided, press **DIRECT TO ➤** to automatically show nearby airspace information. This information includes name, time to entry (if applicable), and status. Normally, only one or two airspace alerts occur at a time, but with sectorized controlled airspace (such as many Class B areas) you can have more. Status information can appear as follows:

Ahead—your projected course takes you inside an airspace within the next ten minutes or less.

Near—you are within two nautical miles of an airspace, but not projected to enter it.

Near & Ahead—you are within two nautical miles of an airspace and your current course takes you inside the airspace.

Inside Airspace—you are within the boundaries of the airspace.

From the Nearest Pages you can show additional airspace information as well, such as floor and ceiling limits or communication frequency(s).

To view additional airspace information:

1. When an airspace alert had been provided, press and hold **DIRECT TO** to show the Nearest Pages and the airspace information. If you are already viewing the Nearest Pages, use the **ROCKER** to select the **Airspace** category.
2. Use the **ROCKER** to select the airspace alert entry on the page, then press **ENTER**. An information page opens showing the controlling agency, status, and floor/ceiling limits.
3. To show a communication frequency for the airspace, select the on-screen **Frequencies** button, and press **ENTER**.
4. To return to the **Nearest Pages**, select the on-screen **OK** button, and press **ENTER**.

Navigating in Automotive Mode

Auto-Routing is a feature that makes it simple to navigate to a destination when in Automotive Mode. You can select a destination point from the Find Menu and, press **ENTER** to show the Information Page for that item. Highlight the on-screen **Go To** button at the bottom of the page, and press **ENTER** to begin the Auto-Routing process from your current location to the destination.



You can select **Faster Time**, **Shorter Distance**, or **Off Road** option windows show on the Map Page. Select an option and the unit calculates the route. When complete, the Map Page shows a bold magenta (gray for the GPSMAP 96) line overlaying the roads

on your route. A guidance message shows at the top of the page with directions to the first turn on the route. As you approach each turn, a tone sounds and a Turn Preview Page appears with a detailed graphic of the turn.



Route Turn List Page

To view all turns on the route, press **PAGE** repeatedly until the Active Route Page appears with a graphic list of the turns. Highlight any turn field and press **ENTER** to view the Preview Page for that turn.

Two other Main Pages, the Position Page and Pointer Page provide travel information and directional guidance. Selecting the Highway Page from the **Main Menu** provides a graphic highway depicting your route.

Going to a Destination in Marine Mode

Navigating to a destination in Marine Mode uses the same features as the Automotive Mode with the exception of the Auto-Routing feature.

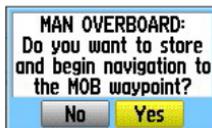


Marine Mode Route on Map

When you select a Find Menu item (typically from the Marine Points list), select the **Go To** button. The GPSMAP 96/96C creates a direct-line navigation route to the destination. If you want to create a route with turns at specific points, refer to the section on Creating Routes. Once a route is started, the point to point path is shown on the Map Page and supported by the Main Page, Navigation Pages and the Highway Page. The Active Route Page shows a list of the waypoints on the route and indicates the next point on the route.

Man OverBoard (MOB)

The Man OverBoard (MOB) feature (functional only in the Marine Mode) lets you simultaneously mark and set a course to a position for quick response to emergency situations.



To start the MOB function:

1. Press and hold **DIRECT TO** .
2. Select **Yes**, and press **ENTER** to confirm and begin navigating to the MOB.

Once a MOB has been started, an MOB waypoint with an international MOB symbol is created and the unit begins actively navigating 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.



MOB on Waypoints list

Creating and Using Waypoints

The Garmin GPSMAP 96/96C stores up to 1,000 alphanumeric waypoints with a user-defined icon, comment, altitude, and depth available for each waypoint. Waypoints can be created using three basic methods:



Mark Waypoint Page

- **Enter/Mark key**—allows you to mark your present position.
- **Graphically**—allows you to define a new waypoint position from the Map Page using the **ROCKER** to position the Arrow.
- **Text Entry**—allows you to enter a new waypoint's position coordinates manually.

To mark your present position:

1. Press and hold **ENTER/MARK** until the Mark Waypoint 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, use the **ROCKER** to highlight **OK**, and press **ENTER**.

To change the any information on the Mark Waypoint Page, highlight the appropriate field, and press **ENTER**. After entering and confirming your changes, highlight **OK**, and press **ENTER**.

Creating Waypoints Graphically

Waypoints can also be quickly created with the Map Page Arrow. When you move the cursor over a map item, you see a highlighted description of that item. The GPSMAP 96/96C uses the map item text shown on the cartography as the default name and symbol for the new waypoint.



To create a new waypoint using the Map Page:

1. Press **PAGE** until the Map Page appears.
2. Use the **ROCKER** to move the Arrow to a map point or map feature.

3. Press and quickly release **ENTER** to capture the map point. Pressing and holding **ENTER** marks your present position, not the map Panning Arrow's location.

If you have highlighted a map feature, an information page is shown after you press **ENTER**. Use the **ROCKER** to highlight Save and press **ENTER** to save the item as a waypoint.

4. The Waypoint Page appears. To accept the waypoint with the default name and symbol, highlight **OK**, and press **ENTER**.

To change the any information on the Waypoint Page, highlight the appropriate field, and press **ENTER**. After entering and confirming your changes, highlight **OK**, and press **ENTER**.

Additional Options for Creating Waypoints

Waypoints can also be created by manually entering position coordinates through the Find feature of the Main Menu. This method can be useful for creating a waypoint at a specific latitude/longitude position from a chart. You can also manually change the location coordinates in the New Waypoint Page to create a new waypoint.

To create a waypoint through the Main Menu:

1. Press **MENU** twice to show the **Main Menu**.
2. Use the **ROCKER** to highlight the **Find** icon on the page, and press **ENTER** to show the Find Menu.
3. Open a Find category and select an item from the list, then press **ENTER** to show the information page and then select **SAVE**.

To change any information on the New Waypoint Page, highlight the appropriate field, and press **ENTER**. After entering and confirming your changes, press **QUIT**.

To create a new waypoint by entering location coordinates:

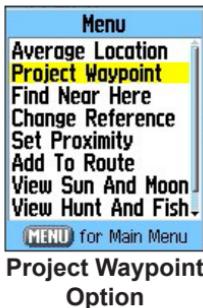
1. Create a waypoint using your favorite method (discussed in previous sections). The new waypoint is created with the next available waypoint number and the receiver's last known position as the default name and position.
2. Use the **ROCKER** to highlight the Location field, and press **ENTER**. Use the **ROCKER** to enter the position coordinates, and press **QUIT** when finished.

To change any of the other information on the New Waypoint Page, highlight the appropriate field, and press **ENTER**. After entering and confirming your changes, press **QUIT**.

A waypoint can also be created by projecting the distance and bearing from a specific location to a new location.

To create a new waypoint by projecting its location:

1. Create a waypoint using your favorite method (discussed in previous sections) or select a waypoint from the Find Waypoints List.
2. Press **MENU** to open the New Waypoint Page Options Menu.



3. Use the **ROCKER** to highlight Project Waypoint, and press **ENTER** to show the Project Waypoint Page.
4. To set the distance that the new waypoint is to be projected beyond the original waypoint, highlight the Distance portion of the From field, and press **ENTER**. Use the **ROCKER** to adjust the distance, and press **ENTER**.

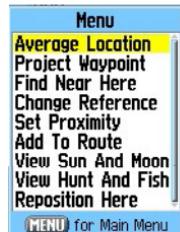
To adjust the bearing that the new waypoint is projected from the original waypoint, highlight the Bearing portion of the From field and press **ENTER**. Use the **ROCKER** to adjust the bearing, and press **ENTER**.

When you have adjusted all elements of the projected location, highlight Map or GoTo, and press **ENTER**. To save the new waypoint, press **QUIT**.

5. Make any other changes to the new waypoint data (such as the name or symbol), then highlight **OK**, and press **ENTER**.

Waypoint Menu Options

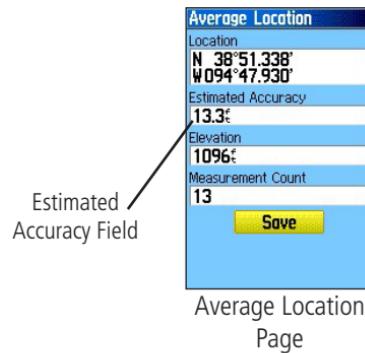
As well as Project Location, additional options are available by pressing **MENU** on the New Waypoint and Waypoint Information Pages: Average Location, Find Near Here, Change Reference, Set Proximity, Add To Route, View Sun and Moon, View Hunt and Fish, and Reposition Here. Select Average Location to have the unit take several sample location measurements for the waypoint and recalculate for a more accurate position reading. You can only average the location for a waypoint you are currently marking where you have a fix on satellites from that location.



Waypoint Options
Menu

To calculate the average location:

1. Select "Average Location" from the Options Menu.
2. The "Average Location" screen appears. Watch as the fields change as the unit calculates the average position of the waypoint. When you are satisfied with the average location, press **ENTER**.



To find an item (waypoint, etc) near a selected waypoint :

Select **Find Near Here** to show the Find Menu, and select a category to show a list of map items near that waypoint.

To change the reference point for a waypoint:

Select **Change Reference** to show a map page with instructions at the bottom for placing the Panning Arrow at a new reference point.

Press **ENTER** to change the reference and return to the waypoint page.



Change Reference Page

Use Panning
Arrow to
define a new
reference.

To set a proximity alarm for a waypoint location:

1. Select **Set Proximity** from the Options Menu.
2. Press **ENTER** to show the Proximity Waypoints Page. Then follow setup instructions on [page 113](#).



**Set Proximity
Waypoint**

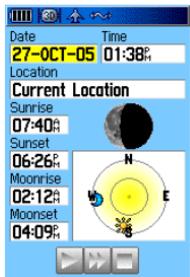
To add a new waypoint to a route:

1. Select **Add To Route** from the Options Menu.
2. The **Routes** screen appears. Highlight the show route or select **New Route**, and press **ENTER**.

- A “Successfully Added Waypoint” message appears. Press **ENTER** to acknowledge and exit.

To view Sun and Moon positions at a waypoint location:

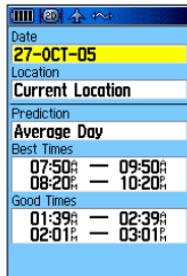
Select **View Sun and Moon**, and press **ENTER** to show Sun and Moon positions for that location. See the section on Sun and Moon tables for detailed information.



View Sun and Moon

To view Hunt and Fish predictions for a waypoint location:

Select **View Hunt and Fish**, and press **ENTER** to show Hunt and Fish predictions for that location. See the section on Hunt and Fish tables for detailed information.



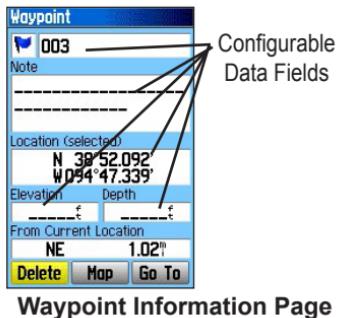
View Hunt and Fish

To reposition a waypoint to your current location:

Select **Reposition Here**, and press **ENTER** to position the waypoint at your current location.

Reviewing and Editing Waypoints

Once you have created and stored a waypoint, it can be modified, reviewed, renamed, moved, or deleted at any time through the Waypoint Review and Waypoint Edit Pages.



To access the Information Page:

1. Use the **ROCKER** to highlight a waypoint on the Map Page.

2. Press **ENTER** to show the Waypoint Information Page. If the waypoint is located on a map database feature, or MapSource or BlueChart feature, the Information Page includes additional information about that location.

From the Waypoint Information Page, you can change the name, symbol, comment, position coordinates, or depth for the selected waypoint.

To change the waypoint name:

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

To change the waypoint symbol:

1. Highlight the symbol field next to the name, and press **ENTER**.
2. Highlight the Symbol Group field at the top of the page, and press **ENTER** to show the list of groups. Use the **ROCKER** to select a symbol group, and press **ENTER**.

3. Use the **ROCKER** to select the symbol from the group list, and press **ENTER** when finished.

To delete a waypoint:

Highlight the **Delete** button on the page, and press **ENTER**.



Waypoints List Options Menu

To view the waypoint on the map:

Highlight the **Map** button on the page, and press **ENTER**.

The following options are available by pressing **MENU** with the Waypoints list shown:

Find Nearest/Find By Name—shows nearest waypoints or all waypoints.

Select Symbol—shows only waypoints with the same symbol from the list.

Change Reference—changes the location for which nearest waypoints appear.

Delete—deletes by symbol or all waypoints from the unit.



NOTE: Once a waypoint is deleted from the list, it cannot be recovered from the unit. It is advisable to backup important waypoints to a computer using the USB cable and interface software or write them down by hand.

To delete a waypoint from the Waypoints List:

1. Use the **ROCKER** to highlight the waypoint to be deleted.
2. Press **ENTER** to show the Information Page for that waypoint.
3. Highlight **Delete** button on the page, and press **ENTER**. Confirm the deletion warning by selecting **Yes**, and pressing **ENTER**.

To delete waypoints by symbol:

1. Highlight the waypoint to be deleted, and press **MENU**.
2. Highlight the symbol from the **Used Symbols** list, and press **ENTER**.
3. Use the **ROCKER** to highlight the symbol of the waypoint(s) to be deleted, and press **ENTER**.
4. Highlight **Yes**, and press **ENTER** to confirm. Choose **No** or press **QUIT** to stop the deletion.



Delete Waypoint Options

Searching for a Waypoint

The Waypoints List is your storage location for all created and saved waypoints. Waypoints can be created from marking your location, pointing to a place on the map or saving any other Find item (i.e. city, restaurant) as a waypoint. Waypoints are stored in alphabetical order and are also identified by a symbol assigned from a list of symbol types. Waypoints can be selected as destinations and added as points on a route.



Find Waypoints List

To find a Waypoint:

1. Press **DIRECT TO ➤** to show the Find Menu.
2. Highlight the Waypoint icon, and press **ENTER** to show the Waypoints List.
3. Use the **ROCKER** to scroll up and down the list to find a waypoint. If the list is large, you can press **MENU** to show a list of search options.

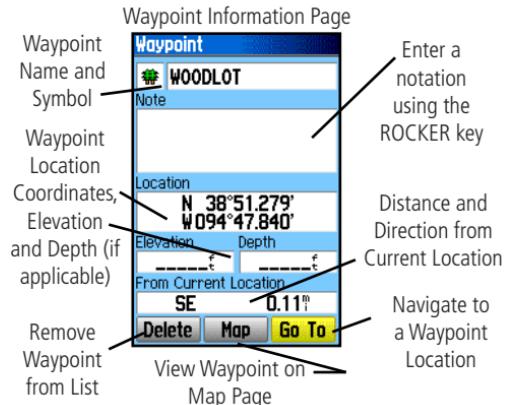
Find By Name: allows you to enter the name of the waypoint in a search field.

Find Nearest: allows you to list only those waypoints near your current location.

Select Symbol: allows you to search for only those waypoints of a specific type.

Change Reference: allows you to use the Panning Arrow to select a point on the map other than your current location.

4. A waypoint information page can be viewed by pressing **ENTER**. The data can be edited or select **Go To** to navigate to a waypoint.

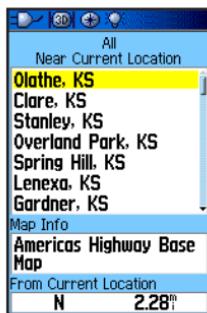


Searching for a City

The Find Cities feature allows you to search for any city listed in the mapping database (either in the basemap or from downloaded detailed mapping data).

To find a city:

1. Use the **ROCKER** to select the **Cities** option, and press **ENTER** to show the find by **Nearest** list of cities.
2. Use the Options Menu to find a city **By Name**, by entering a key word for **Nearest Containing**, use **Select Map** to select a different map to search from or to **Chance Reference** from your current location using the Map Pointer to find cities nearest a new location on the map.



Find Cities List

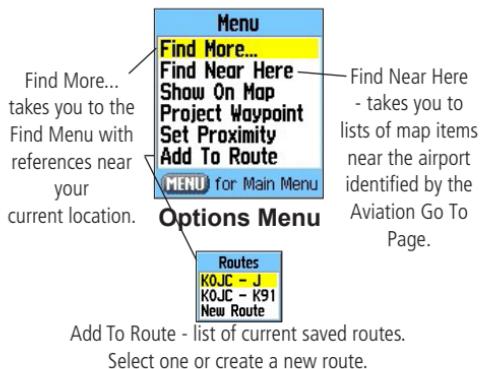
3. If using **find By Name**, begin spelling the name of the city by using the **ROCKER**. When you have entered enough characters to define the name, a match list appears. If you are using **find By Nearest** scroll through the list to find the city you want. If using **Nearest Containing** use the **ROCKER** to enter the key word to show a list of cities using that word.
4. Use the **ROCKER** to select the city from the list, and then press **ENTER** to show the Information Page for that city.
5. With the Information Page showed, you can select **Go To**, **Map**, or **Save** options.

Searching for an Airport

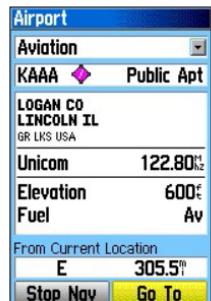
The Find Aviation feature allows you to search for airports provided in the Jeppesen database in your GPSMAP 96/96C.

To find an airport: (Aviation mode)

1. Press **DIRECT TO ➔** when in Aviation Mode to show the **Find Menu**, select the Aviation icon, then press **ENTER** or press **DIRECT TO** when in Aviation Mode to show the Aviation Go To Page.



2. The Aviation Go To Page shows the first airport on the database list of airports, its location, communication frequencies, elevation, type of fuel available, and the direction and distance from your current location.



Aviation Go To Page

3. To search for a specific airport, highlight the airport field, and use the **ROCKER** to enter the identification letters of the airport. Then press **ENTER** to highlight the **Go To** button.
4. Press **ENTER** to create a direct route to the airport from your current location or **QUIT** to exit the page.

To use the Aviation Go To Page Options:

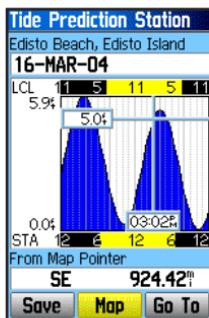
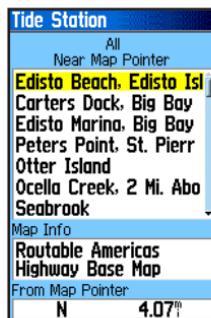
- With the airport shown on the page, press **MENU** to show the Options Menu.
- Find More** and **Find Near Here** take you to the **Find Menu**. **Show on Map** shows the airport on the map, **Project Waypoint** allows you to project a new waypoint from that location (see [page 34](#)), **Set Proximity** allows you to set a proximity alarm for this location (see [page 36](#)), and **Add To Route** allows to place the airport in a route you are creating (see [page 22](#)).

Searching for a Marine Point

The Find Marine Point feature allows you to search for the marine items, such as marinas, navaids, services, wrecks and obstructions. If using BlueChart® detailed marine chart data, the Tide Station feature allows you to view tide predictions for locations contained in the mapping data.

To find a Tide Prediction Station

- Press **DIRECT TO ➤** when in Automotive or Marine mode to show the Find Menu.
- Select the Marine Points icon, then press **ENTER** to show the sub-icon(s) for marine items supported by the basemap and downloaded detailed marine charts.
- Use the **ROCKER** to highlight and select the Tide Station icon, then press **ENTER**.

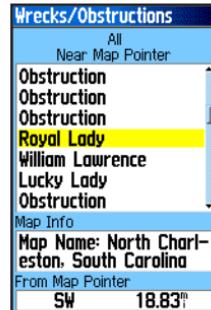


4. A list of tide stations nearest to you appears. If a "None Found" message appears, then you are not currently located near a coast line. Press **MENU** to show the Tide Station Options Menu. Select from Nearest Containing or Change Reference. You can enter a key word for a known tide station or can use the map pointer to move to the nearest coast line, and then press **ENTER** to establish a location near marine items.
5. Select a tide station from the list, and press **ENTER** to show the information page for that tide station.

At the bottom of the Information Page are on-screen buttons for Go To, Map, and Save.

To find a Wreck or Obstruction:

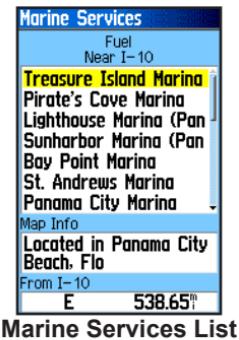
1. Select the Marine Points icon, and then press **ENTER** to show the sub-icon(s) for marine items supported by the basemap, and downloaded detailed marine charts.



Wrecks/Obstructions

2. Use the **ROCKER** to highlight and select the Wrecks/Obstructions icon, then press **ENTER**.
3. If you get a "None Found" message, you are too far from the coastline or out of the area of map data coverage. Press **MENU** and use the **Change Reference** option as explained on the previous page.
4. Select an item from the list, and press **ENTER** to show the information page for that item.

At the bottom of the Information Page are on-screen buttons for **Go To**, **Map**, and **Save**.



To find Marine Services

1. Follow the same procedure as above to access the Marine Points Menu, and then select the Marine Services icon.
2. If the "None Found" message appears, follow the same steps explained previously to show a list of marine services near the location you have selected.

3. When the information page for a selected service appears, you can highlight each information category, and press **ENTER** to show additional information.

Searching for an Address

The Find Addresses feature allows you to search for an address within the coverage of downloaded detailed mapping data. Enter the street number, and street name and the Find Feature matches that data with addresses in the map database.

To find an Address: (Automotive or Marine Modes)

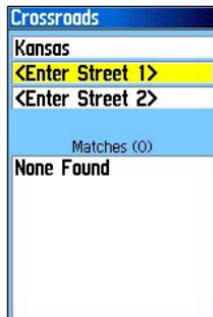
1. Press **DIRECT TO ➤** to show the Find Menu.
2. Highlight the Addresses icon, and press **ENTER** to show the Addresses page.
3. If your unit has a GPS fix, the Region field at the top of the page shows your current region, and the **<Enter City>** field disappears. The city shows with the list of address matches when finished.

4. Press **MENU** to show the options list. You can choose a new region, clear all, or show a list of regional cities if you want to search for a city yourself. If you select Enable City Filter an enter city field shows on the Address Page. Highlight the field and press **ENTER** to show the city list. Select a city from the list, and press **ENTER** to insert the city
5. Next enter the Street Number **<Enter Number>** using the **ROCKER**.
6. Finally press **ENTER** to show the street list. Use the **ROCKER** to enter enough of the street name to show a match on the list below. When finished, a list of matches appears below. Select one, and press **ENTER** to show the Information Page. Highlight the **Go To** button to navigate to the address.



Searching for a Crossroad

The Find Crossroads feature allows you to search for a street intersection within the coverage of downloaded detailed mapping data. Enter the two street names and the Find Feature matches that data with intersections in the map database.



Crossroads Search Page

To find a Crossroad: (Automotive or Marine Modes)

1. Press **FIND** to show the Find Menu.
2. Highlight the **Crossroads** icon, and press **ENTER** to show the Find Crossroads search page.
3. If your unit has acquired satellite signals, the Region field at the top of the page shows your current region, and the <Enter City> field disappears. The city appears list of crossroad matches when finished.
4. Press **MENU** to show the options list. You can choose a new region, clear all, or show a list of regional cities if you want to search for a city yourself. If you select **Enable City Filter** an enter city field appears on the Crossroads Page. Highlight the field and press **ENTER** to show the city list. Select a city from the list, and press **ENTER** to insert the city
5. Highlight <Enter Street 1> and follow instructions in step 6 on the previous page. Repeat for <Enter Street 2>.

6. When done, a list of matches appears below. Select one, and press **ENTER** to show the Information Page. Highlight the **Go To** button to navigate to the crossroad.

Searching for a Point of Interest

You can use the Find Point of Interest feature to locate points of interest such as nearby restaurant, lodging, landmark, public building, and parks. However, you must have downloaded MapSource detailed mapping that supports this feature otherwise these options, plus Address and Crossroad options, are not available.



Find POI Topic List

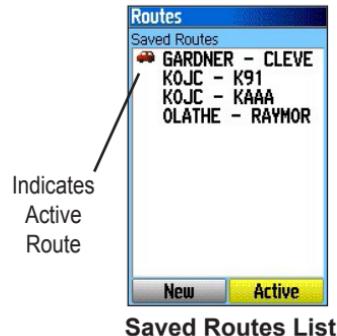
To find a point of interest:

1. Press **DIRECT TO ➤** in Automotive or Marine Modes to show the Find Menu or the Show More option from the Aviation Go To Page. Or Select the Find icon from the Main Menu.
2. Highlight a **Points of Interest** icon, and press **ENTER** to show the list of nearest points.
3. Press **MENU** to choose from search options or choose **Select Category** to narrow your search.
4. Highlight an item from the list, and then press **ENTER** to show the Information Page for that item.

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

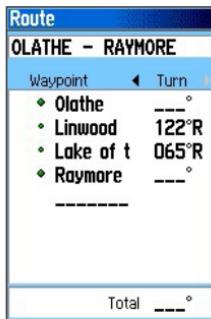
Creating and Using a Route

Route navigation allows you to create a sequence of intermediate waypoints which lead you to your final destination. The GPSMAP 96/96C stores 50 routes, each with up to 250 waypoints each. A route can be created and modified from the Routes Page, and waypoints can be added to a route from the Aviation Go To Page or Find Menu. More complex routes can be created using a PC and MapSource programs and then transferred to the unit memory.



To create a route:

1. Access the **Routes** Page from the Main Menu.
2. Use the **ROCKER** to highlight the **New** button, and press **ENTER** to show the route Setup Page.
3. With an empty row (dashed) in the route list highlighted, press **ENTER** to show the Aviation Go To Page.



4. Press **MENU**, select **Find More...**, and press **ENTER** to show the Find Menu.

4. Use the Find Menu to select a route waypoint from one of the Find Menu groups and shows the Information Page for the selected point of interest. Highlight the on-screen **Use** button, and press **ENTER** to place it on the Route Waypoint List.
5. To add more points to the route, repeat the process.
6. Press **QUIT** to save it to the Saved Routes list. Or
Press **MENU**, highlight **Activate**, and press **ENTER** to navigate.

Methods of navigating to a destination:

- When you start the “Go To” button on the Information Page for a User Waypoint or other Find Menu item, the GPSMAP 96/96C creates a straight path (point to point) from your current location to that location.
- When you select **Activate** from a Route Page options menu the GPSMAP 96/96C creates a route composed of several User Waypoints or Find Menu items, with the last being your destination. It navigates directly from point to point. Before

each turn in the route a turn page shows a guidance message and graphic of the turn. You can view the turns at any time by pressing the **ROCKER** up or down while the route is active.

- In Automotive Mode these two navigation methods change when you select the “Follow Roads” option from the Routing Setup Page. Both Go To navigation and point to point routing become routes that allow you to navigate using roads.

The routes use existing roadways (either those in the basemap or from downloaded detail mapping) to automatically calculate a route to your destination.

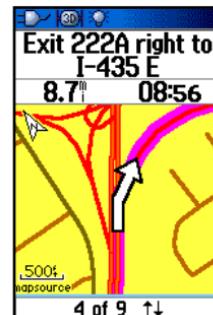
Turns on roadways are added to the active route page and is preceded by a guidance message with a graphic screen of the turn.

If there are not enough roads at your location to calculate a route, a message appears.

Navigating a Route

After you have created a route, you can begin navigation immediately or save it to the Saved Routes list as explained on [page 72](#).

When you are navigating a route, a guidance message and graphic view of turns in the route shows as you approach each one. Using the “Follow Roads” option from the Routing Setup Page increases the number of turns and shows an Active Route Page with a list of turns. If you selected the “Off Road” option you can view only the list of points for a route from the Active Route Page. (See Routing Setup on [page 107](#))



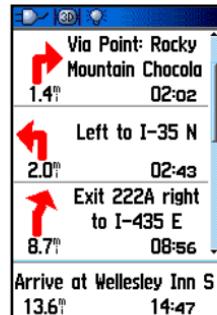
To Preview the Turns for an Active Route:

- From the Routes Page, highlight the route from the Routes list.
- Press **ENTER** to show the Route Page for the route.
- Highlight a route and from the Saved Routes list, and press **MENU** to show the options menu. Select **Activate**, and press **ENTER** to begin navigation and to show the route on the Map Page.



Active Route Page

- To view the list of turns on the route, press **PAGE** to show the Active Route Page. The view any individual turn on the list, use the **ROCKER** to highlight it, and press **ENTER**.



List of Turns for an Active Route using the **Follow Roads** option

- The Preview Page show the turn and guidance text and a small field at the bottom showing the turn number in sequence and total turns in the route. To scroll through all turn previews, move the **ROCKER** up or down. To exit, press **QUIT**.
- To stop navigating, select **Stop Navigation** from the Map or Pointer Page, and press **ENTER**.

Route Options (for all operating modes)

To start a route:

From the Saved Routes Page, press **MENU** to show the Options Menu. Highlight the **Active Route** option, and press **ENTER**.

To create a new route:

From the Saved Routes Page, press **MENU** to show the Options Menu. Highlight the **New Route** option, and press **ENTER** to show the New Route Page

To copy a route:

Highlight the **Copy Route** option, and press **ENTER**. The copied route show, and is named the same but followed by a numeral 1.



To delete a route or all routes:

1. From the Saved Routes Page, press **MENU**.
2. To clear a highlighted route or the saved routes list, select **Delete Route** or **Delete All Routes**, and press **ENTER**. A prompt shows, asking "Do you really want to delete...?" Select **Yes**, and press **ENTER**.

To set up the route leg transition for routes:

1. From the Saved Routes Page, press **MENU** to show the Options Menu.
2. Highlight the **Set Up Routes** option, and press **ENTER** to show the Route Leg Transition Set Up Page.

3. Highlight the Route Leg Transition field, and press **ENTER** to show the list of options. Select **Auto**, **Manual**, or **Distance**. These settings control manner in which the route advances to the next leg.



Using the Route Detail Page Options:

To start the route:

With the Options Menu shown, highlight **Activate**, and press **ENTER**.

To edit the route on the map:

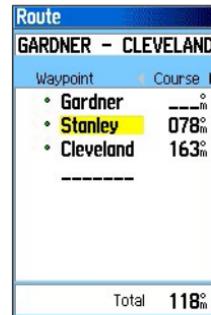
1. With the Options Menu shown, highlight the **Edit on Map** option, and press **ENTER** to show the route on the map. Use the **ROCKER** to move the panning arrow to select a route waypoint on the map.

2. Press **ENTER** to show the options for editing that waypoint. You can **Review**, **Remove**, or move to the **Next** waypoint, and **Add Turns** by creating new waypoints on the map.

Using the Route Detail Page Options:

To start the route:

With the Options Menu shown, highlight **Activate**, and press **ENTER**.



Route Detail Page

To edit the route on the map:

1. With the Options Menu shown, highlight the **Edit on Map** option, and press **ENTER** to show the route on the map. Use the **ROCKER** to move the panning arrow to select a route waypoint on the map.
2. Press **ENTER** to show the options for editing that waypoint. You can **Review**, **Remove**, move to the **Next** waypoint, and **Add Turns** by creating new waypoints on the map.

To reverse the route:

With the Options Menu shown, highlight the **Reverse Route** option, and press **ENTER**.

To select an approach: (Aviation Mode only)

With the Options Menu shown, highlight **Select Approach** to show options for the destination airport.

To set speed and fuel flow:

With the Options Menu shown, select the **Set Speed and Fuel** option, and press **ENTER** to show the **Set Fuel Flow** option.

To modify a waypoint on a Route Detail**Page:**

Select the waypoint from the list of waypoints, and press **ENTER** to access the Route Waypoint Options Menu. You can **Review** the information page for the waypoint, **Insert** a new waypoint ahead of the selected waypoint, **Remove** the selected waypoint, **Change** it to another waypoint, and **Move** it in the list order.

VNAV (Vertical Navigation) Setup Page

The VNAV Page provides settings for the vertical navigation feature. These settings create a three-dimensional profile that guides you from your present position and altitude to a final (target) altitude at a specified location. When defined, message alerts and data track your progress on the HSI Page.

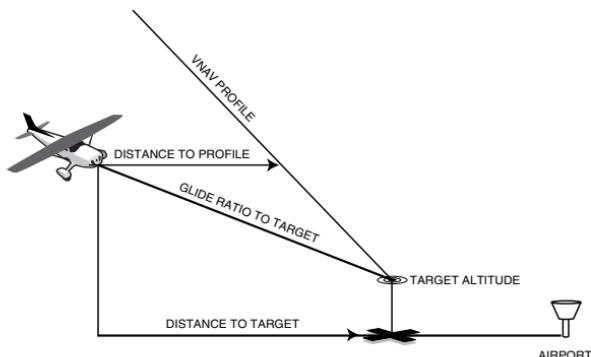
A VNAV indicator appears as a moving bar depicting the Vertical Deviation from the VNAV Profile.



VNAV on HSI Page

NOTE: The GPSMAP 96/96C is a VFR navigation tool and should not be used to perform instrument approaches. VNAV is only a VFR navigation instrument and is not intended for instrument approaches.

As you approach the initial descent point, the time to vertical navigation field (ETV) indicates the time to reach the initial descent point. The “Approaching VNAV Profile” message appears one minute prior to the initial descent point. The descent angle locks to prevent changes in speed from altering the profile. The VNAV feature does not take into account any changes in groundspeed that occur during the transition from level flight to descent or climb. The “Approaching Target Altitude” message appears at 500 ft above the target altitude, the time to vertical navigation goes blank, and the VNAV indicator disappears from the HSI Page.



Settings

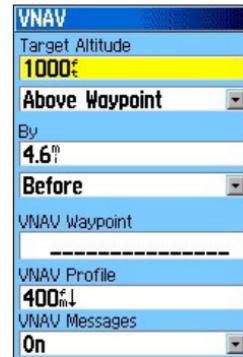
Target Altitude—the altitude you want to be at when you reach your target location. Select **Above Waypoint** to use field elevation for airports in the Jeppesen database or “Above MSL” to specify an exact MSL altitude target.

By—defines the target location with settings of distance Before or After a reference waypoint (normally the final destination airport). To set a target location AT a reference waypoint, enter a distance of zero.

VNAV Waypoint—allows you to select any waypoint along the currently active route (or Go To) as your reference waypoint. The reference waypoint defines the target location.

VNAV Profile—allows you to select the descent rate.

VNAV Messages—enables and disables the VNAV alert messages.



VNAV Setup Page

To define the VNAV profile settings:

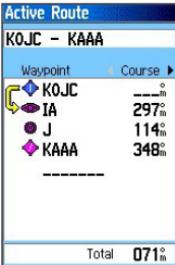
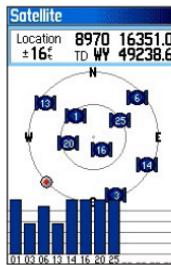
1. Press **MENU** twice to show the Main Menu. Use the **ROCKER** to select **Setup**, and then **VNAV**.
2. Use the **ROCKER** and **ENTER** keys to highlight and select options.

To Restore Defaults:

While on the VNAV Page, press **MENU**. A message “Restore Defaults” appears. Press **ENTER**.

MAIN PAGES

The GPSMAP 96/96C offers three usage modes, Aviation Mode (default), Marine Mode, and Automotive Mode, allowing you to customize settings to use the unit for each application. The modes can be changed in the System Setup option or by pressing and holding PAGE. The main pages are linked together in a series that you can cycle through by pressing PAGE to go forward and QUIT to reverse. Each page also has an Options Menu that allows you to customize each (in all three modes) to your preferences and select features that relate to that page. To view the Options Menu for a page, press MENU.



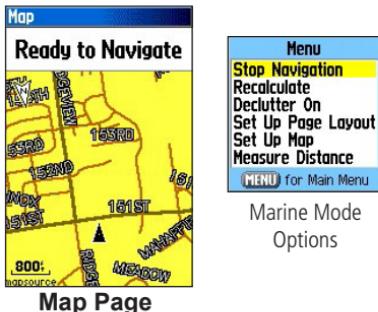
Aviation Mode features five main pages: Satellite Page, Position Page, Map Page, HSI Page and Active Route/Go To Page. An example of each page in Aviation Mode appears below. Each of these pages has a specific use and each page is discussed later in this manual. The Aviation Mode is the default mode for the GPSMAP 96/96C. This guide first addresses each page, such as the Map Page, as shown in the Aviation Mode. The guide then describes the page shown in Marine and Automotive Mode, if major differences exist. Marine Mode features five main pages: the Satellite, Position, Map, Pointer, and Active Route Pages. The Active Route Page appears with a list of route waypoints if you are navigating.

See the Navigation section for more information on navigation options. Automotive Mode features the same five pages as Marine Mode with the exception that the Active Route Page provides instructions when auto-routing is being used. When you are following roads to your destination, the Active Route Page changes from a list of waypoints to a graphic of each turn on your route with a turn detail page to support each turn on the active route. An optional Highway Page can be enabled in all modes.

The Map Page

The GPSMAP 96/96C features a real-time moving map that can do much more than just plot your course. The Map Page shows digital cartography (map information) that includes airspace boundaries, airports, navaids, lakes, rivers, coastlines, cities and highways. An on-screen pointer (Panning) arrow lets you pan ahead to other map areas, determine distance and bearing to any map position, and retrieve database information directly from the map. Dedicated zoom keys (IN and OUT) are provided for instant scale adjustments.

Two basic map operating modes, position mode and cursor mode, determine what cartography is shown on the Map Page. Position mode pans the cartography. The position marker (position icon) that shows your travel on the Map Page is an aircraft symbol  in Aviation Mode or a position symbol  in Marine or Automotive modes. The GPSMAP 96/96C always powers up in the position mode, with the last known location centered on the map screen.



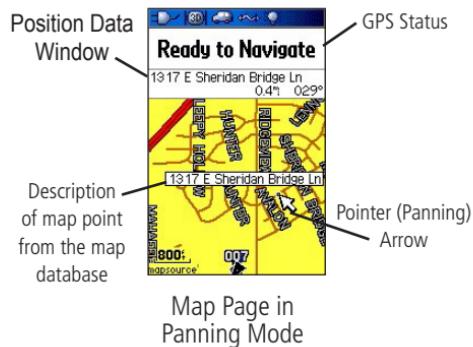
When you press the **ROCKER**, the GPSMAP 96/96C enters cursor mode that pans the cartography to keep the cursor, the white pointer (panning) arrow icon , within the screen. When the cursor is active, an additional data window appears at the top of the screen to indicate the position, range, and bearing to the cursor or a selected waypoint or map item.

Up to four user-selectable data fields can be selected to appear on the screen. From the Map Page Options, each data field can be configured to show any one of the possible data options. You can also add an HSI field which replaces two data fields on the page or

select Map Only without data fields, using the Map Page Options Menu.

Panning the Map with the Pointer Arrow

The Pointer Arrow 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 screen, the screen actively scrolls to provide continuous map coverage (keep in mind that the position icon stays in your present location and can not be visible on the screen when you pan the map).



To move the arrow:

Press up, down, right or left on the **ROCKER**.

As you move the Arrow, the distance and bearing from your present position to the cursor shown in the data window. When you zoom in panning mode, the arrow stays centered on the screen. When the arrow is stationary, a fixed coordinate position appears in the position field, and the distance and bearing from your present position changes as your vehicle moves.

To re-center your position on screen:

- When you are finished panning the Map, press **QUIT**.
- The unit automatically returns to position mode.

The arrow can also be used to snap to on-screen waypoints and map items, allowing you to review a selected position or feature directly from the map screen.

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

- Use the **ROCKER** to move the arrow to a waypoint or map item. If there are several items grouped closely together, zoom in closer.
- When a waypoint or map item is selected, it is highlighted on screen with the name and position shown at the top of the screen, along with the distance and bearing from your current location.



Map Page in Panning Mode with a map item highlighted.

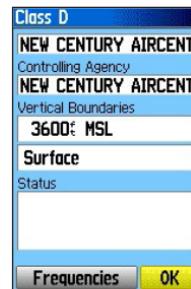
To view additional details about an on-screen waypoint or map item:

1. With the waypoint or map item highlighted, press **ENTER**.
2. If the item is a waypoint, a Waypoint Information Page appears, showing details such as name, symbol, coordinates, elevation, and depth. The on-screen buttons **Delete**, **Map**, or **Go To** appear. Select an on-screen button and press **ENTER**, or press **QUIT** to exit the Waypoint Information Page.

If the item is a map feature, an Information Page appears, showing details about the feature. The on-screen buttons **Delete**, **Map**, or **Go To** appear. Select an on-screen button and press **ENTER**, or press **QUIT** to exit the Waypoint Information Page.

Airspace Information

The Panning mode can also be used to retrieve information on airspaces depicted on the map. Once the Pointer Arrow is placed on an open area within an airspace, the entire airspace (or airspace sector) is highlighted. A text box adjacent to the arrow indicates the airspace type and floor/ceiling limits. Additional information, including communication frequencies, is available from an information page.



Airport Information Page

To retrieve airspace information from the Map Page:

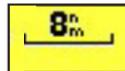
1. Use the **ROCKER** to select an open area within the airspace's boundary. The boundary line is highlighted and a window appears showing airspace type and floor/ceiling limits.
2. To show additional information, press **ENTER**. Communication frequencies can be shown by highlighting the on-screen **Frequencies** button and pressing **ENTER**.
3. To return to the Map Page, highlight **OK**, and press **ENTER**.

Selecting Map Scales and Additional Maps

The map screen has 28 available range scales from 20 ft. to 800 nm. (20 ft. to 800 mi or 5 m to 1200 km). The map zoom range is controlled by the **IN** and **OUT** keys. The current scale is shown at the bottom left of the map screen.

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

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



Using the built-in
basemaps



Using MapSource
downloaded detailed
mapping data



Overzoom
No additional
data available

The system has a built-in worldwide database to 20 mi, with more detailed coverage available through the use of the optional MapSource data. The GPSMAP 96/96C shows cartography as long as there is mapping information available for the range you have selected.

Map coverage conforms to the following conditions:

- Cartography is shown when the selected zoom range is covered by either the internal basemap or other MapSource data downloaded to the unit.
- When the selected zoom range is covered by both the internal bundled database and downloaded MapSource detailed mapping information, the cartography with the best resolution is shown.

- When the selected zoom range exceeds the resolution of the data in use, an “overzoom” warning appears below the map scale.
- When mapping data, downloaded from MapSource, is used, a MapSource identifier appears below the zoom scale indicator.

Map Page Options Menu

The Options Menu on the Map Page provides access to functions and features of the Map Page, as well as layout options for the page. Each data field can be configured to show any one of several data options.

To show the Map Page Options Menu:

From the Map Page press **MENU** to show the options menu.



In the sections following, options have instructions on how to use the option. The Options Menu varies slightly between the Usage Modes.

- Stop Navigation**—turns off active route navigation.
- Recalculate**—recalculates any active route.
- Declutter On/Off**—toggles between showing map detail or simply map outlines for easier viewing.
- Set Up Page Layout**—allows you to customize the layout of the page, such as the size of text and number of data fields.
- Show/Hide Guidance Text**—(Automotive Mode only) toggles between showing or hiding the directions field at the top of the Map Page. Hiding the directions enables more of the map to be visible.
- Set Up Map**—jumps to the Map Setup Menu, allowing you to configure the Map Page to your preferences, including map detail, map orientation, automatic zoom, and various map items and points. See [page 74](#).

- **Set Up Obstacles**—jumps to Obstacle Setup Page allowing you to configure obstacle alert settings.
- **Change Data Fields**—allows you to specify the type of data shown in each data field on the page. Refer to the Appendix for a complete descriptions of all data fields used in the GPSMAP 96/96C.
- **Measure Distance**—allows you to measure the bearing/distance between two points on the map.

To declutter the Map Page:

1. Press Page repeatedly until the Map Page is shown.
2. Press **MENU**.
3. Use the **ROCKER** to highlight **Declutter**, and press **ENTER**.

You can adjust the level of declutter by pressing **ENTER** repeatedly.

To declutter the Map Page in Aviation Mode:

1. Press **PAGE** repeatedly until the Map Page is shown.
2. Press **MENU**.
3. Use the **ROCKER** to highlight **Declutter**, and press **ENTER**.

The first level shown after you press **ENTER** is identified by **Clear -1** under the map zoom range. The background map detail—including highways, cities, rivers & smaller lakes—is removed from the map screen.

4. Press **ENTER** again. Airspace boundary detail is removed from the map screen. **CLEAR-2** appears below the map zoom range.
5. Press **ENTER** again. Only the waypoints and navaids that are part of the current Go To or route appear on the map screen. **CLEAR-3** appears below the map zoom range.
6. Press **ENTER** again to return ALL detail to the map zoom range.

To measure the Bearing/Distance between two points:

1. Highlight the **Measure Distance**, and press **ENTER**. An on-screen pointer appears on the map screen at your present position with **ENT REF** below it.



Measure Distance

2. Move the cursor to a reference point (the starting point that you want to measure from), and press **ENTER**. A push-pin icon marks the starting point on the map screen.

3. Move the cursor to the point to which you want to measure. The bearing and distance from the reference point and cursor coordinates are shown in the data window at the top of the screen.
4. Press **QUIT** to finish.

To set up the page layout:

1. Highlight **Set Up Page Layout** from the Options Menu, and press **ENTER**.
2. Select an option, and press **ENTER**. The options vary between the three usage modes.

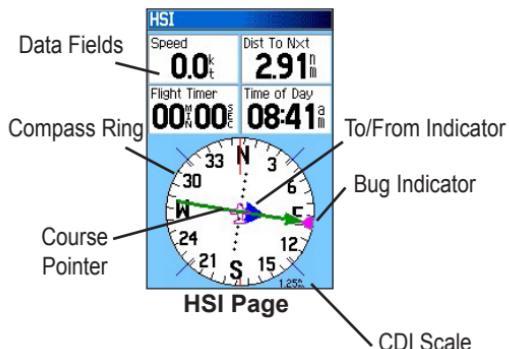
To change a data fields:

1. From the Options Menu, highlight **Change Data Fields**, and press **ENTER**.
2. Move the field highlight to the data field you want to change, and press **ENTER**.
3. Press up or down on the **ROCKER** to highlight the data you want to show, and press **ENTER**.
4. Press **QUIT** to exit.

Refer to the Appendix for a detailed description of each data option.

The HSI Page

The HSI (Horizontal Situation Indicator) Page replaces the Pointer Page when the unit is in Aviation Mode. During active navigation, the HSI Page guides you to your destination with digital data field readouts and a graphic pointer with a bearing pointer.



To show the HSI Page in Aviation Mode:

While in Aviation Mode, use **PAGE** to show the HSI Page.

The graphic on the HSI Page depicts the course to your destination (or to the next waypoint in a route),

current ground track, off course error and a To/From indicator. The rotating compass ring indicates your current ground track (read at the top of the ring). The course pointer or course deviation pointer indicate the your course and the distance you are off-course. A bug indicator provides course to steer information, guiding you to the destination if you are off-course.

The course deviation scale appears behind the course deviation pointer. If you stray off-course, the pointer indicates how far off-course you are. To get back on-course, steer toward the pointer. The course deviation scale is adjustable for .25, 1.25, or 5.0 (nautical mile/statute mile/kilometer) full scale deflection. The default setting is 1.25. This is adjusted using the IN and OUT keys.

As you reach your destination, the To/From Indicator at the center of the HSI indicates waypoint passage. The four data fields at the top of the page are user configurable by accessing the Change Data Fields option from the HSI Page Options Menu. For definitions of available data field options refer to the Appendix.

The Pointer Page

The Pointer Page replaces the HSI Page when the unit is in Marine or Automotive Mode. During active navigation, the Pointer Page guides you to your destination with digital data field readouts and a graphic Pointer appears with a bearing pointer.

To show the Pointer Page in Marine and Automotive Modes:

While in Automotive or Marine Mode, use PAGE to show the Pointer Page.



Pointer Page (Automotive Mode)

The bottom of the page features a rotating Pointer ring that shows your course over ground (track) while you are moving. The course is indicated at the top of the Pointer ring.

The direction of your destination (bearing) relative to the course is indicated by a bearing pointer in the middle of the Pointer ring. A bearing “bug” on the outside of the Pointer ring in Marine mode only. The Pointer ring and bearing indicators work independently to show, at a glance, the direction of your movement and the direction to your destination. If the arrow points up, you are going directly to the waypoint. If the arrow points any other direction turn toward the arrow until it points up. The Marine Mode is a Course Pointer similar to the HSI, that can be selected from the Marine Mode Options Menu.



NOTE: You must be moving for the Pointer to accurately update and show your heading.

Configurable data fields at the top of the page show helpful information during active navigation. For definitions of data field settings, refer to the Appendix.

The Automotive Mode features data fields with default settings that are more desirable for land navigation.

HSI/Pointer Page Options Menus

The Options Menu on the Pointer Page allows you to customize the HSI/Pointer Page to your preferences in all unit operating modes. Like the Map Page, the HSI/Pointer Page features user-selectable data fields. Each data field can be configured to show any one of several data options, and the data window layout can be customized to change the actual size of the data shown.

To show the HSI/Pointer Page Options Menus:

1. Press **MENU** to show the Options Menu.
2. Use the **ROCKER** to select an option.

The options available on the HSI/Pointer Page Options Menus are:



HSI Page Options (Aviation Mode)

Stop Navigation/Resume Navigation—(Automotive and Marine modes)

Recalculate—(Automotive and Marine Modes) Use for an active route.

Set OBS and Hold—(Aviation Mode) Allows you to alter your course.

Set CDI Scale—(Aviation and Marine Modes)

Adjusts the CDI scale.

Set Bug Indicator—(Aviation and Marine Modes)

Sets the Bug Indicator mode.

Enable/Disable VNAV Indicator—(Aviation Mode)

Bearing Pointer/Course Pointer—(Marine Mode)

Toggles between the Bearing Pointer and the Course Pointer. The Course Pointer, which shows how far off you are from your course and how to get on course. Also referred to as a CDI, Course Deviation Indicator.

Set Up VNAV—(Aviation Mode) takes you to the VNAV setup page.

Set Up Page Layout—allows you to choose text size and number of data fields.

Change Data Fields—allows you to specify the type of data shown in each data field on the page. Refer to the Appendix for data descriptions.

Active Route Page

Whenever you have started a route while in Aviation or Marine Mode, the Active Route Page shows each point (waypoint or map item) of the active route, with the point name, Course, Distance, and several other fields of information. The current destination point, the “active” point, is marked with an arrow icon. As you navigate a route, the list automatically updates to indicate the next “active” point first. The Active Route and Route Review Pages share many of the same features and options.

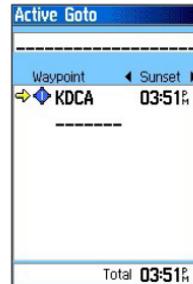
Whenever you have started a route in the GPSMAP 96/96C set in Automotive Mode, the Active Route Page shows each turn of the active route, with the distance to the turn, the street name, and estimated time to arrival and time of arrival. As you navigate a route, the turn list automatically updates to indicate the next turn at the top of the list.

**Active Route Page**

You can scroll through the entire list by moving the scroll bar up or down. Highlight any of the turns on the list, and press **ENTER** to view the Next Turn page for that turn. The Current Route and Next Turn page show similar information, just in a different layout. The Next Turn page shows your next turn on a map.

For additional details on the Active Route Page, see the “Creating and Using a Route” [page 49](#) section of the “Basic Operation” chapter.

The Active Route Page becomes an Active Go To Page when navigating to a destination with no waypoints in between you and the destination.

**Active GoTo
(Aviation Mode)**

Active Route Page Options Menu

The following route options are available by pressing **Menu**.



Deactivate—stops route navigation.

Edit on Map—allows you to edit the route on the map.

Reverse Route—reverses the order of the route.

Select Approach—(Aviation Only) allows you to select the final course segment of a published approach, replacing the final destination airport (in a Go To or route) with the sequence of waypoints for the selected approach. The approaches provide only the final course segment, usually from final approach

fix (FAF) to missed approach point (MAP), and are based on existing GPS, RNAV, VOR, NDB, localizer, or ILS approach procedures. All approach procedures are flown as a sequence of waypoints in the route. In order to select an approach and add the waypoints to the route, the final destination in the “Go To” or “Route” must be an airport with a published approach.

Set Fuel Flow—allows you to enter fuel consumption rate and distance. Intended for use in the Aviation Mode, but can be applied to other modes.

Change Data Fields—allows you to customize the data fields shown on the Active Route Page.

Saving the Active Route

You can save the current route from the Current Route Page. Press **Menu** to save the route. Press **ENTER** when **Save Route** is highlighted. Your route is automatically saved, using the starting point and destination as the route name. Press **ENTER** when **OK** is highlighted to complete saving the route.

Position Data Page

The Position Data Page provides a quick reference for the important data you want to show while navigating a route in Aviation Mode and Marine Mode. The default page shown six user-selectable data fields. The two fields at the bottom of the page show location position coordinates and the nearest airport, city, or other map features depending on the mode of operation.

Position Data Page Options Menu

The following options are available from the Position Data Page:



Position Page Options Menu

Reset—allows you to see the “Reset” page. See the following page for reset options.

Big Numbers—allows you to change the data fields to show fewer data fields with larger numbers for easier viewing.

Change Data Fields—allows you to specify the type of data shown in each data field. See the Appendix for a listing of the data fields.

Change Nearest Type—allows you to specify the type of item to be used as the nearest item. The choices differ based upon the Usage Mode you are currently using.

Position Page Reset Menu

The following options are available from the Position Page Reset Menu. Some options are only available if you have changed the Page Layout from the default (shown to the right).

Reset Trip Data—clears trip information, except the maximum speed and the odometer.

Reset Odometer—clears the running total of the distance traveled since the odometer was last reset

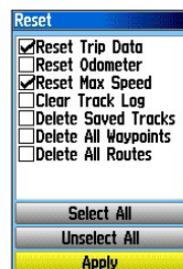
Reset Max Speed—clears the maximum speed.

Clear Track Log—clears the track log.

Delete Saved Tracks—deletes all saved tracks.

Delete All Waypoints—deletes all waypoints.

Delete All Routes—deletes all routes.

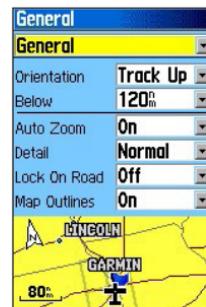


Position Page

Reset Page

The Map Setup Page

The Map Page for your GPSMAP 96/96C can be customized. A factory set of default settings currently controls the Map Page screen. The Map Setup Pages allow you to determine how map features appear on the page by controlling map orientation, text size, track, map item, detailed map data, and more. It is suggested that you wait until you are more familiar with the operation of your unit before deciding what features you want to customize.



Map Setup Page

To customize the Map Page:

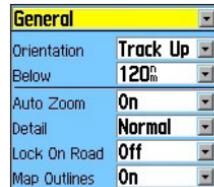
1. To access the Map Setup Pages, press **MENU** with the Map Page on the screen.



2. Scroll down the Menu to the **Setup Map** option, and press **ENTER** to show the Map Setup Page. At the top of the page are icons for each setup page.
3. Use the **ROCKER** to move from icon to icon when selecting a map setup page and to move up and down to the feature fields on each page.
4. With a Map Setup feature highlighted, press **ENTER** to show the list of options for that feature. Each Map Setup Page has a menu of general options. This menu can be accessed by pressing **MENU** with the page shown.

General Setup

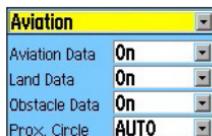
The first page of the Map Setup feature is the General Settings Page. Use this page: to select the map orientation, **North Up** (with north at the top of the map) or **Track Up** (with the map oriented in the direction of travel). **Below** sets the map zoom range at which the Track Up feature shows, all scales above that revert to the North Up map orientation. **Auto Zoom**, zooms in on the map to include the beginning and ending points of a route. **Detail** selects the degree of map detail shown. You can lock the Position Arrow to show on the nearest road, compensating for variances in map position accuracy.



The General Settings Map Setup Page

Aviation Setup

The Aviation Settings Page allows you to turn On or Off the Aviation, Land and Obstacle data and set the radius of proximity circles.



The Aviation Settings Map Setup Page

Tracks Setup

The Tracks Settings Page has settings for maximum zoom for viewing saved tracks and active track logs. You can set the number of track points for recording a track, select either a bearing or course line for navigating a track and set the heading line to off and to show in distance or time.



The Tracks Settings Map Setup Page

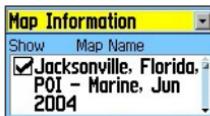
Map Information Setup

The Map Information Page show a list of downloaded detailed MapSource® maps such as topographic, marine charts and maps with auto-routing capability. Use the **ROCKER** to highlight a map and press **ENTER** to show it on the map screen or turn it off.

Pressing MENU shows list of options for managing maps.



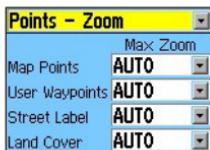
Map Information Options Menu



The Map Information Map Setup Page

Points—Zoom Setup

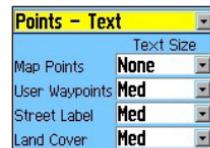
The Map Points—Zoom Page allows you determine the map zoom range at which various map features appear. You turn off the screen, set it to Auto or select a value from 20 feet to 500 miles.



The Points- Zoom Map Setup Page

Points—Text Setup

Use the Map Points—Text Page to select the text size for descriptions of items on the Map Page. You can select from Small, Medium, or Large.



The Points—Text Map Setup Page

SUAs Setup

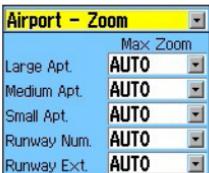
The SUA's Page of the map setup feature allows you determine the map scale at which various Special Use Airspace areas shown. You can turn off the screen, set it to Auto or select a value from 20 feet to 500 miles.



The SUA's Map Setup Page

Airport—Zoom Setup

The Airport Zoom Page of the map setup feature allows you determine the map zoom range at which various airports and runway features shown. You can turn off the screen, set it to Auto or select a value from 20 feet to 500 miles.



The Airport - Zoom Map Setup Page

Airport—Text Setup

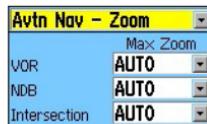
The Airport—Text Page of the map setup feature allows to select the text size for descriptions of airports and runways on the Map Page. You can select from Small, Medium, or Large.



The Airport—Text Map Setup Page

Aviation Navigation—Zoom Setup

Use the Avtn Nav—Zoom Page to determine the map scale at which various aviation navigation features shown. You can set it to Auto or select a value from 20 feet to 500 miles.



The Aviation Navigation—Zoom Setup

Aviation Navigation—Text Setup

Use the Avtn Nav—Text Page to select the text size for descriptions of aviation navigation features on the Map Page. You can select from Small, Medium, or Large.



The Aviation Navigation—Text Map

Marine Setup

The Marine Settings Page is used to control the screen of marine chart items when using downloaded marine charts (i.e. MapSource BlueChart® marine mapping data).



The Marine Settings Map Setup Page

Obstacle Data

Obstacle on the map Page are shown in red, yellow, and gray and dark gray, light gray, and white for the GPSMAP 96C and GPSMAP 96 respectively.

References to obstacle icon gray tones for GPSMAP 96 units are in parentheses for this section. Standard aeronautical chart symbols are used for lighted or unlighted obstacles above and below 1000 ft Above Ground Level (AGL). Upcoming obstacles, as you approach them, are marked by an “X” symbol.



Lighted Obstruction 1000 ft. AGL and higher.



Unlighted Obstruction 1000 ft AGL and higher.



Lighted Obstruction below 1000 ft AGL .



Unlighted Obstruction below 1000 ft AGL.

Obstacle Icons

Obstacles appearing in red (dark gray) are predicted to be within 100 ft elevation of your flight path. Those colored yellow (light gray) are more than 100 ft, but less than the elevation in the user defined “Caution

Elevation” field below your flight path. You can change the Caution Elevation from the default of 1000 ft to 750 ft or 500 ft. Obstacles below your currently selected caution elevation threshold are shown in gray (white).

Obstacle warnings are dependent upon the user defined parameters on the Obstacle Data Setup. The GPSMAP 96/96C evaluates obstacles, according to the parameters set, within a proximately one mile on either side of your projected flight path. Obstacle warnings appear in either red with white lettering (black with white lettering) indicating a red (dark gray) obstacle is in range or black with white lettering (white with black lettering) indicating a yellow (light gray) obstacle. The obstacle warning remains on the screen until the flight path has cleared the obstacle or you have pressed Enter.



Obstacle Warning

The GPSMAP 96/96C “Look Ahead Time” for obstacles determines the maximum time frame when an annunciation (a pop up window with tone) occurs. The default setting is 120 Seconds, however you have the option in the Obstacle Data Setup for 90 or 60 Seconds.

“Obstacle Alert Sensitivity” determines what level of alerts are annunciated. The GPSMAP 96/96C defaults to high sensitivity, which annunciate all red (dark gray) and yellow (light gray) obstacles at the look ahead time set. The Obstacle Data Setup allows you the option of high, medium, or low. Medium sensitivity annunciates all of the red (dark gray) and

the highest priority of yellow (light gray) obstacles, where low only annunciates red (dark gray) obstacles.



Obstacle Data Setup Page

To setup obstacle data:

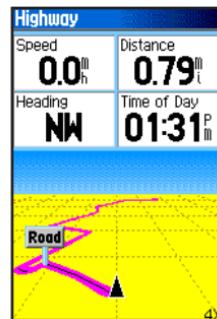
1. Access the Obstacle Data Setup Page.
2. Highlight the first field, and press **ENTER** to show the options for setting the minimum difference in elevation for upcoming obstacles contained in the mapping database.
3. Use the second field to set the "Look Ahead Time." The time before reaching the obstacle.
4. The third field is used to determine the alert sensitivity threshold for the size of the obstacle.
5. Use the **ROCKER** to select options, and press **ENTER**.

Obstacle Data Setup

The Obstacle Data Setup Page allows you to set the levels for alerting you to obstacles in or near your flight path. This setup page can also be accessed from the Map Page Options Menu.

The Highway Page

When you are navigating a route, the Highway Page can guide you to the destination using data fields and a graphic highway. Up to four user-selectable data fields show information such as speed, distance, or time to next point on the route. The list of data to show and the method of selection is the same as for the HSI/Pointer Page and is explained in detail on [page 67](#).



Highway Page with an Active Route

The Highway graphic provides visual guidance, taking you point by point to your final destination.

Your course is represented by a center line down the middle of the graphic. As you move toward each point on your route, the graphic shows the direction you should move to stay on course to the point. Five scale settings allow you to zoom in or out on the highway.

To navigate using the Highway Page:

1. While navigating, access the Highway Page from the Main Menu and observe your path of travel shown on the highway graphic.
2. Press **MENU** to show the options menu. You can do the following:

Set Up Page Layout allows you to configure data fields from four to three. Change the Data Fields allows you to select the type of data to show in each field. Refer to [page 66](#) for instructions on changing data fields. To restore defaults for the data fields press **MENU** with a data field highlighted and the press **ENTER**.

To show the Highway Page:

1. Press **MENU** twice to show the Main Menu.
2. Use the **ROCKER** to highlight the "Highway Page" icon and press **ENTER**. This page can be shown for all three operating modes.

MAIN MENU

The Main Menu is the directory for all unit features not in the Main Page sequence with the exception of Mark Waypoint, which is accessed by pressing **ENTER**. The Time and Date can be found at the bottom of this page. A detailed discussion of each of the Main Menu features follows this brief introduction. Use the **ROCKER** to highlight a feature name and then press **ENTER** to show the feature page.



Main Menu

- **Find**—This feature provides a convenient method for searching for cities, airports.
- **Tracks**—This feature allows you to maintain a record of your movements (track log).
- **Routes**—Create a list of points that you wish to navigate to and save for later use.
- **E6B**—Calculates winds aloft, density altitude, and true airspeed based on entered data.
- **Flights**—Shows a log of the flights you have taken using the GPSMAP 96/96C.
- **Timers**—Allow for timing in flight functions, such as flights and batteries.
- **Aircraft**—Allows you to enter custom information about your aircraft.
- **Setup**—Controls the settings for many of the unit operating system features.
- **Proximity**—An Alarm feature for a defined circle around a specified waypoint.
- **Calendar**—A calendar with data access as well as waypoint association.

- **Alarm Clock**—This feature allows you to use the GPSMAP 96/96C as an Alarm Clock.
- **Nav/Sonar Alarms**—This feature allows you to select from a variety of navigation alarms for aviation and maritime use.
- **Calculator**—A standard or scientific calculator for measurement conversions, etc.
- **Stopwatch**—A multi-featured stopwatch.
- **Sun & Moon**—Sunrise and sunset times, moon phases and sun and moon location for any given date and time.
- **Hunt & Fish**—A table of time frames for best hunting and fishing opportunities for any given location and date.
- **Message Log**—Allows you to view a list of messages received. This feature also includes filters to exclude messages by type.
- **Highway**—A useful graphic perspective with configurable data fields for navigating a route.

Find

The Find Feature provides you with a method for searching for Waypoints, Airports, Cities, and Exits which are included in the GPSMAP 96/96C basemap and Jeppesen database. You can also find a Waypoint you have saved. If you have downloaded Garmin MapSource® mapping data that contains additional map detail, you can search for and find Points of Interest, Addresses and Intersections. If you download BlueChart® data, you can find Marine Points such as Wrecks and Obstructions, NAVAIDS, and Anchorages. If this additional data is not loaded, these options are not available.



Find Menu

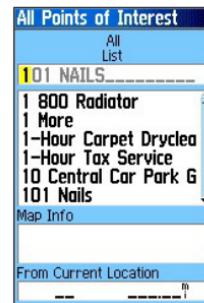
Searching for a map item is simplified by separating the map database into groups which are shown as icons on the Find Menu Page.

- When you access a Find group list, by default it contains only those items near your current location or the Panning Arrow (if active).
- To save effort in searching again for an item already found, you can use the “Recent Finds” group which contains a list of 50 last found items of all categories. Pressing and holding **DIRECT TO** key also shows this category at any time when in Automotive or Marine Mode.

The options menu for each map item group offers its own unique search options such as “Find By Name,” “Find Nearest,” “Select Symbol” (for Waypoints), “Change Reference” (by moving the map Panning Arrow to a new location), “Nearest Containing” (a key word you enter), “Select Category” (for those groups such as Food and Drink, Lodging, etc.). Using these options can effectively shorten your search.

Searching for a Location

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



To find a location using Find By Name:

1. Press **DIRECT TO ▶** to show the Find Menu.
2. Use the **ROCKER** to highlight the icon for the type of item you want to search for, and press **ENTER** to show the page.
Or
If you want to search the entire item database, select **All Points of Interest**.
3. Press **MENU** to select **Find By Name**.
4. Use the **ROCKER** and **ENTER** keys to enter the name of the location, when the list shows a match, highlight **OK** and press **ENTER** to go a list where you can select the item.
5. With the item selected, press **ENTER** to shows the Information Page for that item.

Recent Finds

The Recent Finds Page saves all of your most recent searches on a list that places your last found location at the top of the list. When you exceed the number of entries the list can hold, the oldest is deleted.

To return to a recently found item:

1. With the Find Menu shown, use the **ROCKER** to highlight the **Recent Finds** icon, and press **ENTER** to show the Recent Finds List.
2. Use the **ROCKER** to select the list item you want view, and press **ENTER** to show the Information Page for that item.

Using the Find Item Information Page

When you have selected a Find item and pressed **ENTER**, an Information Page shown with detailed information about the item. This page contains:

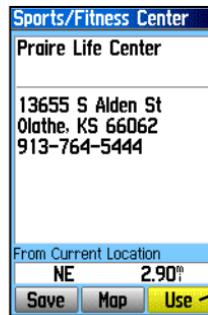
- A title (if a waypoint, it can be renamed and a map symbol assigned)
- An information field (if a waypoint, information you add, if a map item, an address or other description)
- Location coordinates, if the item is a waypoint.
- Elevation and depth if a waypoint.
- Direction and distance from current location or the map pointer

At the bottom of the page are three on-screen buttons, these buttons appear differently depending on whether you are selecting a Find item to navigate to or adding a Find item to a route list as a waypoint.



Information Page for a Waypoint

- If selecting an item to add to a list of points, these three buttons appear.
- Save**—save as a waypoint.
- Map**—show on the Map Page.
- Use**—insert into a list of points on a route.



Information Page for a Map Item

- If selecting an item as a destination, the three buttons appear as:

Save/Delete—Add to or Remove from the Waypoints list.

Map—show on the Map Page.

Go To—start a Go To navigation.

The Find Item Information Page Options Menu

The Find Information Page Options Menu offers eight options for using a Find Item as a tool for navigation.



- **Average Location**—used with waypoints only, it samples a waypoint location over time and averages the result for a more accurate position reference.
- **Project Waypoint**—create a new waypoint by referencing another location by entering a bearing and distance from the referenced location (present position or Find Item location)
- **Find Near Here**—returns you to the Find Menu where you can search for map items near the item defined on the Information Page.
- **View Sun and Moon**—view the Sun and Moon tables for this item location.

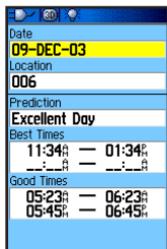
To use the Find Item Information Page Options Menu:

1. With an Information Page appears for a Find item, press **MENU** to show the Options Menu.
2. Use the **ROCKER** to highlight the an option, and press **ENTER** start:



- **View Hunt and Fish**—view the Hunt and Fish tables for this item location.

(Refer to [page 121](#) for detailed information about the Hunt and Fish Tables)



- **Map Information**—show the map that the map item originated from. (Refer to [page 129](#) for information about downloading detailed maps.)



- **Change Reference**—point to a new location on the map Page using the Panning Arrow, and press **ENTER**.

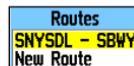


- **Set Proximity**—program an alarm to sound when you are within a specified radius of an item defined by the Information Page.

(Refer to the Section on Proximity Waypoints on [page 113](#) for detailed information.).

- **Add To Route**—include this item on a New Route or add it to an existing route.

(See Creating and Using a Route [page 49](#) on for details)



Tracks

The Tracks feature creates an electronic trail on the map Page as you travel about and is referred to as a Track Log. A track log contains information about points along its path, including time, position, altitude and depth.

Use a Track Log to:

- Record your movements for a given time and place and save it.
- Measure the area of any space you encircle with a track.
- Retrace your path in either direction.



Tracks Page with Saved Track Log

To create a Track Log:

1. Press **MENU** twice to show the Main Menu. Use the **ROCKER** to highlight the **Tracks** icon.
2. Press **ENTER** to show the Tracks Page. The page contains On and Off buttons to start or cancel the Track Log and a Track Log meter which shows the percentage of track log space used.
3. Beneath the Track Log field are four on-screen buttons to: **Setup**, **Clear**, **Save**, and **TracBack®** feature for the current log.



Saved Track Page

4. To setup a track log, highlight **Setup**, and press **ENTER** to show the Setup Page. The first item on the page is **Wrap When Full**. If you don't check this item, then the track log stops recording when full instead of overwriting the oldest data with new data.
5. Highlight the **Record Method** field, and press **ENTER** to open the Distance, Time and Auto options. Because a track is made of a series of points that define your path of travel, they can be placed a specified Distance apart or placed at a Time interval you specify. The "Auto" option allows you choose from five intervals.
6. Set the interval for setting track points. You can choose from distance, time, or frequency values.
7. The last item is the Active Track Color Options list.
8. When completed, press **QUIT** to return to the Track Log Page.

To Save a Track Log:

1. With the Tracks Page open, highlight **Save**, and press **ENTER**, you are asked "Do You Want To Save the Entire Track?". If you select **Yes**, a **Saving Track** message appears followed by the Saved Track Page. The new saved track is a representation of the entire track log from beginning to end.
2. If you select **No** a map showing the entire track appears and prompts "Select the beginning point for the saved track." Use the **ROCKER** to move the Panning Arrow to the point on the track line that you want to become the beginning of the Saved Track, and press **ENTER**.



Saved Track on the Map Page

3. The next prompt asks you, "Select the ending point for the saved track." Use the Panning Arrow to identify a point on the track that you want as the End Point, and press **ENTER**. A **Saving Track** message appears followed by the Saved Track Page.
4. The Saved Track Page allows you to: Rename the track, view the track distance, view the calculated area encircled by the track (an area is defined even if the track is open ended), specify a color for the track when shown on the map page (Show On Map). On-screen buttons at the bottom of the page allow you to **Save** the track **OK**, **Delete**, **View it on the Map**, and **TracBack**.



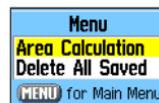
Saved Track Page

To view a Track on the Map:

1. With the Saved Tracks Page for the track or the Track Log shown, highlight **Map**, and press **ENTER** to show the Map Page.
2. A map showing the entire track appears with Begin and End markers. Any User Waypoints added to the Track is shown as well.

To calculate the area of a Track:

1. With the Track Log Page shown, and the Track Log On, press **MENU** to show the Area Calculation option.



2. Highlight the option, and press **ENTER** to show the calculation Start Page. Press **ENTER** to start the calculation as you begin to move and define the area's boundaries. The page now shows a **Stop** button.



3. When you have completed defining the area, press **ENTER** to show the page with a **Save** button.
4. Press **ENTER** again to save the new track to the Saved Tracks List.

To Use the TracBack feature:

1. With the Saved Tracks Page for the track or the Track Log shown, highlight the **TracBack** button, and press **ENTER** to show the TracBack Page.
2. A map showing the entire track appears and you are prompted to select the point you want to TracBack to. Use the **ROCKER** to move the Panning Arrow to a point on the map, and press **ENTER** to start navigating the TracBack.

3. Select either **Follow Road** to route back to the selected point using available roadways or **Follow Track** to retrace your original path of travel. Highlight the **Don't ask Again** option, and press **ENTER** if you want to use the same option the next time you use TracBack.
4. When the TracBack Navigation Page shows, directions to the first turn on the track appears at the top of the page. Move in the direction of the first turn. When you reach the first turn, the screen provides directions for the next turns, and until you have reached your destination.
5. To exit a TracBack, press the **MENU**, and select **Stop Navigation**.



TracBack Page

To Create a User Waypoint on a Saved Track:

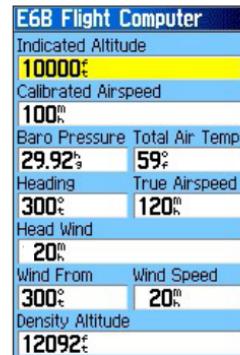
- With a saved track shown on the map, use the **ROCKER** to move the Panning Arrow to the point on the track that you want to mark as a user waypoint. Press **ENTER** to show the Mark Waypoint Page.
- To customize the user waypoint explained on [page 38](#), then highlight **OK**, and press **ENTER** to save.

E6B Flight Computer

The E6B Flight Computer in the Main Menu calculates Density Altitude, True Airspeed, and Winds Aloft (Head Wind, Tail Wind, Wind From, and Wind Speed), based upon information you enter.

To open the E6B Page of the Main Menu:

- Press **MENU** twice to open the Main Menu.
- Highlight the **E6B** icon from the vertical list of tabs using **ROCKER**, and press **ENTER** to show the setup page.



E6B Flight Computer

Indicated Altitude—required entry for density altitude/true airspeed calculation. Enter the aircraft's altimeter reading.

Calibrated Airspeed—required entry for density altitude/true airspeed calculation. Enter the aircraft's airspeed indicator reading.

Baro Pressure—required entry for density altitude/true airspeed calculation. Use current altimeter setting (barometric pressure).

Total Air Temperature—required entry for density altitude/true airspeed calculation. Total Air Temperature (TAT) is the temperature of the air including the heating effect caused by speed.

Heading—required entry for winds aloft calculation. Use heading from the aircraft's heading indicator or directional gyro.

True Airspeed (calculated figure or user entered)—from entry of calibrated airspeed, baro pressure, and total air temperature. Also can be entered directly for winds aloft calculations.

Head Wind (calculated figure)—from entry of heading and true airspeed.

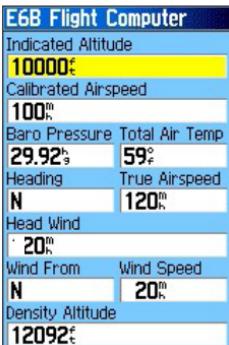
Wind From (calculated figure)—from entry of heading and true airspeed.

Wind Speed (calculated figure)—from entry of heading and true airspeed.

Density Altitude (calculated figure)—from entry of indicated altitude, baro pressure and total air temperature.

To calculate true airspeed and density altitude:

1. From the E6B Page, use the **ROCKER** to highlight the **Indicated Altitude** field at the top of the page, and press **ENTER**.
2. Use the **ROCKER** to enter the altitude shown on your altimeter. Press **ENTER** when finished.
3. Repeat steps 1 and 2 to enter the **Calibrated Airspeed**, **Baro Pressure**, and **Total Air Temperature**. (For **Calibrated Airspeed**, use the speed shown on your airspeed indicator. Use the current altimeter setting for Baro Pressure. Total Air Temperature is the temperature of the outside air including the heating effect caused by speed. For most aircraft, this is the temperature reading on a standard outside air temperature gauge.)
4. The calculated figures for True Airspeed and Density Altitude are shown in the designated fields.



E6B Flight Computer Page



NOTE: If Cardinal letters are selected for the “Direction Display” field of the “Units” setup page, the “Heading” and “True Airspeed” fields can not be configured.

To calculate winds aloft:

1. Follow the steps above to determine true airspeed.

Or

Use the **ROCKER** and **ENTER** to manually enter a true airspeed figure in the True Airspeed field.

2. Use the **ROCKER** to highlight the Heading field, and press **ENTER**.
3. Use the **ROCKER** to enter the aircraft heading shown on your directional gyro or Pointer. Press **ENTER** when finished.

The figures for Head Wind, Wind From, and Wind Speed are shown.



NOTE: If a True North reference is currently selected (as the heading reference) on your GPSMAP 96/96C, you must enter “Heading” using a True North reference to accurately determine winds.

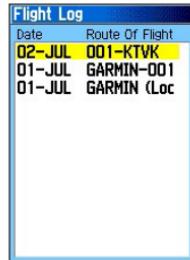
To restore defaults:

1. Open the E6B page of the Main Menu.
2. Press **MENU** to open the Options Menu.
3. Press **ENTER** when **Restore Default** is highlighted.

Flight Log

The Flight Log shows a list of any recorded flights, including date, route of flight, and flight time. The GPSMAP 96/96C saves up to 50 recorded flights.

Entries on this list are automatically created for each flight (but only in Aviation Mode). Recording begins when your speed exceeds 30 knots and you gain 500' of altitude. The Route of Flight information uses the nearest airport as the departure airport. The destination airport is continuously updated as your flight progresses. If you land and groundspeed drops below 30 knots, the flight entry is saved and a new entry is recorded when you depart the airport. (Touch-and-goes or brief stops of less than ten minutes append to the current flight record, rather than start a new entry.) Select any listed item to view additional flight information.



Flight Log Page

To view details for a saved flight:

1. Press **MENU** twice to open the Main Menu.
2. Highlight the Flights icon using the **ROCKER**, and press **ENTER** to open the page.
3. Use the **ROCKER** to highlight a flight, and press **ENTER**.
4. With **OK** highlighted, press **ENTER** to return to the Flight Log.



Selected Flight Log

An optional FlightBook software package is available to further simplify your flight record keeping. For additional detail about FlightBook, visit the Garmin Web site at www.garmin.com/aviation.

Flight Log Options Menu

The following options are available by pressing **MENU**:

Delete Flight—deletes the highlighted flight record from memory.

Delete All Flights—deletes all flight records from memory.

Timers

To open the Timers Page, press **MENU** twice to open the Main Menu. Select the Timers icon and press **ENTER** to show the Timers Page.

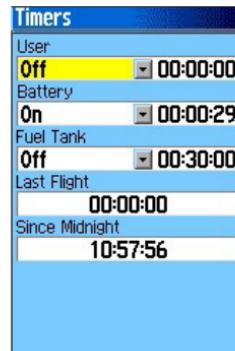
User—allows you to set the timer to **Count Up** or **Count Down**. You can also **Reset** the timer and turn it **Off**. Enter a time to use when counting up or down to the right. Can be used for any application.

Battery—allows you to set the battery useful life timer to Off, On, or Reset.

Fuel Tank—allows you to set a reminder for switching fuel tanks. Timing automatically starts at the beginning of your flight, and the reminder message repeats at the specified interval.

Last Flight—shows the length of time the unit was turned on during the last flight.

Since Midnight—shows the time the unit has been turned on since midnight. This resets at midnight.



Flight Timers Page

To use the Flight Timers feature:

1. Press **MENU** twice to open the Main Menu.
2. Highlight the Timers icon using the **ROCKER**, and press **ENTER** to open the page.
3. Use the **ROCKER** to highlight a timer field, and press **ENTER** to view options for that field. The **User** field can be used for any function you wish to time.
4. Use the **ROCKER** to select an option, and press **ENTER**.
5. Use the **ROCKER** to highlight the numeric field adjacent to each topic, and press **ENTER** to highlight the first character. Use the **ROCKER** to enter a value.

Aircraft Profile

The Aircraft Profile Page consists of two separate sections: **Aircraft Profile** and **Weight & Balance**.

Aircraft Profile Setup

The Aircraft Profile allows you to define cruising speed, maximum speed, and fuel flow for up to ten aircraft that you regularly fly.



Aircraft Profile Page

To enter an aircraft profile:

1. On the Aircraft Profile Page, use the **ROCKER** to highlight the **New**, and press **ENTER**.
2. Highlight the **Current Aircraft** field, and press **ENTER**.
3. Use the **ROCKER** to enter the aircraft tail number (or other identifying information) in the **Current Aircraft** field. Press **ENTER** when finished.

4. Use the **ROCKER** enter information for the cruising and maximum speeds for your aircraft, the your aircraft's fuel flow, and the symbol for your aircraft.

To select a saved aircraft profile:

1. On the Aircraft Profile Page, use the **ROCKER** to highlight the **Current Aircraft** field, and press **ENTER**.
2. Use the **ROCKER** to select an aircraft profile and press **ENTER**.

To create a new profile, rename or delete a saved aircraft profile:

1. Use the **ROCKER** to highlight the **New**, **Edit**, or **Delete** buttons at the bottom of the page, and press **ENTER**.
2. Use the **ROCKER** to select the on-screen **RENAME** or **DELETE** button, and press **ENTER**. If Rename is selected, use the **ROCKER** and **ENTER** to enter a new tail number.

Weight & Balance

Weight & Balance can be used during your pre-flight preparations to verify the weight and balance conditions for your aircraft. By entering the weight and arm values on this page, the GPSMAP 96/96C can calculate the total weight, moment and center of gravity (CG) figures, ensuring a safe flight every time.

Before entering the various figures, you need to determine the basic empty weight of the airplane and the arm (or station) for each weight entered. These figures should be determined using the pilot's operating handbook for your airplane. The pilot's operating handbook also notes the weight limitations and fore/aft CG limits. Compare those figures to the values calculated by the GPSMAP 96/96C.

ITEM	WEIGHT	ARM
Aircraft	0	0.000
Fuel	0	0.000
Pilot	0	0.000
Co-pilot	0	0.000
Passenger	0	0.000
Passenger	0	0.000
Baggage	0	0.000
Other	0	0.000
Other	0	0.000
WEIGHT	C.G.	
0	-----	
MOMENT		
0		

Weight & Balance Page

Empty Aircraft—retains aircraft empty weight and arm figures, retains other arm figures, but zeros all other weight values.

Restore Default—restores all settings to zero.



Options Menu

To perform weight and balance calculations:

1. From the Aircraft Profile Page, use the **ROCKER** to select **Weight & Balance** at the top of the page.
2. Use the **ROCKER** to highlight a weight field, and press **ENTER**.
3. Use the **ROCKER** to enter the weight figure. Press **ENTER** when finished.
4. Use the **ROCKER** to highlight the corresponding arm field, and press **ENTER**.
5. Use the **ROCKER** to enter the arm figure. Press **ENTER** when finished.
6. Repeat steps 2 through 5 above until all figures are entered. The calculated moment, weight, and CG figures appear at the bottom of the page. Keep in mind that the "Aircraft" (empty weight/arm) figures must be entered as a reference to calculate a valid moment, weight, and CG.

Setup

The Setup Menu allows you to customize the GPSMAP 96/96C to your personal preferences. Each setup page is identified by an icon. Highlight an icon, and press **ENTER** to view that setup page. The setup pages are arranged with features and data fields that can be changed to meet your requirements.

To access the Setup Menu:

1. From the Main Menu select the Setup icon, and press **ENTER**.
2. With the Setup Menu shown, select the feature you want to modify, and press **ENTER**.

System Setup

The System Setup Page allows you to choose from three modes of GPS operation, enable/disable WAAS, designate battery type, choose an on-screen text language, and choose what happens when the GPSMAP 96/96C is disconnected from an external power source.



To change a System Setup feature:

1. Use the **ROCKER**, and **ENTER** keys to select the feature field and setup options.
2. With an option for a field highlighted, press **ENTER** to select. To view the software version, press **MENU**, and select **Software Version**.



**System Setup Page
and Options**

Display Setup

The Display Setup Page allows you to select a screen display color scheme for day and night viewing. You can set the backlight timeout and the level of brightness which can significantly save on battery power.

To change a System Setup feature:

1. Use the **ROCKER** and **ENTER** keys to select the feature field and setup options menus.
2. With an option for a feature field highlighted, press **ENTER** to select. Use the **ROCKER** to slide the brightness level selector.



Display Setup Page

Interface Setup

The Interface Setup Page allows you to control the input/output format used when connecting your unit to a computer, external NMEA devices, and a DGPS beacon receiver using a USB or Serial Port Cable.

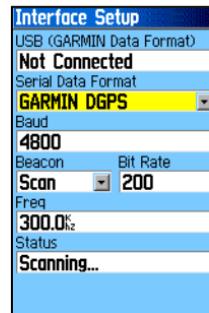


Interface Setup Page

The following settings are available:

GARMIN—the proprietary format used to exchange waypoint, route, track log and MapSource data with a PC.

GARMIN DGPS—the proprietary format used with a Garmin differential beacon receiver (e.g., GBR 21). Provides for tuning of the beacon receiver directly from the GPSMAP 96/96C.



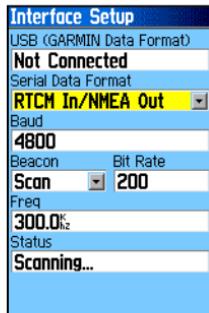
Data Format Page for
GARMIN DGPS

Aviation In—the proprietary format used for connection to a Garmin panel-mounted GPS receiver. Allows Go To or route selection on the panel-mount to be automatically show on the GPSMAP 96/96C.

NMEA In/NMEA Out—supports input and output of standard NMEA 0183 version 3.01 data.

Text Out—allows ASCII text output of location and velocity information. No input.

RTCM In—provides DGPS input using a standard RTCM SC-104 format. No output.



Interface Setup—RTCM In/NMEA Out

RTCM In/NMEA Out—allows DGPS input using a standard RTCM SC-104 format and supports the output of standard NMEA 0183 version 3.01 data.

RTCM In/Text Out—allows DGPS input using a standard RTCM SC-104 format and supports the output of simple ASCII text output of location and velocity information

None—provides no interfacing capabilities.



NOTE: When the USB cable is connected to the GPSMAP 96/96C, it is automatically detected and communicates only in Garmin Format. When the USB is connected, Garmin format does not communicate through the Serial connection, while all other formats can be used by the Serial connection with the USB still connected.

To change an Interface Setup feature:

1. Access the Interface Setup Page as explained at the beginning of this section.
2. Highlight a setting, and press **ENTER**.
3. When you select Text Out and /or RTCM In, additional fields appear. Use the **ROCKER** to highlight **Baud Rate**, and press **ENTER**. Use the **ROCKER** to highlight a setting, and press **ENTER**.
4. For Garmin DGPS or RTCM In/NMEA Out, use the **ROCKER** to highlight **Beacon**, and press **ENTER**. Use the **ROCKER** to select **Scan** or **User**, and press **ENTER**.

If **Scan** is selected, the GPSMAP 96/96C automatically directs the beacon receiver to scan for available beacon transmitters.

If **User** is selected, select the **Freq**, and **Bit Rate** fields, and enter the appropriate settings. The beacon status, signal-to-noise ratio and distance to beacon are shown in the bottom of the page.

Tones Setup

The Tones Setup Page allows you to customize the signal tones for a variety of unit features.



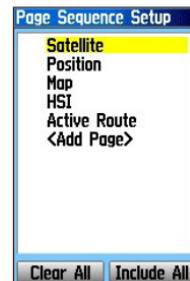
Tones Setup Page

To use the Tones Setup feature:

- Access the Tones Setup Page.
- Use the **ROCKER** to highlight the feature for which you want to set a tone, and press **ENTER** to show the options menu.
- Highlight a option, and press **ENTER**. As you move down the list, each different tone sounds.

Page Sequence Setup

The Page Sequence Setup Page allows you to reorder any of the Main Pages, or add pages when you press **PAGE**. If you add a page to the sequence, it no longer appears in the Main Menu.



Page Sequence Setup Page

To move, insert or remove a page:

1. Access the Page Sequence Setup Page.
2. To move a page in the order, highlight the page, and press **ENTER**. Select **Move**, then move up or down until a position is shown, and press **ENTER**.
3. To insert a new page, highlight the page you want to insert the new page before, and press **ENTER**. Select “**Insert**,” then choose a page from the list, and press **ENTER**.
4. To remove a page, highlight the page, and press **ENTER**. Select **Remove**, and press **ENTER**.

Routing Setup

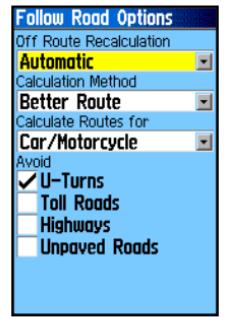
The Routing Setup Page allows you to customize how the routing functions behave. There are setup and option menus for route creation and methods of navigation.



Routing Setup Page

To Use Routing Setup Options:

1. Access the Routing Setup Page.
2. Select the Guidance Method and choose **Prompted** if you want to be asked to a method (“Follow Road” or “Off Road”) each time a route is calculated. Otherwise, the chosen method always is used for navigation.
3. If you chose **Follow Road**, a field offers a similar choice of **Prompted**, **Faster Time** or **Shorter Distance**.

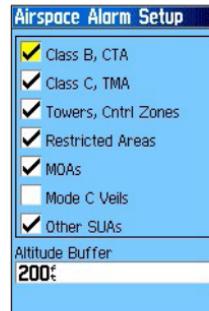


Follow Road Options

4. If you want the Next Turn Preview Page to show just before each turn on the route, select **On** from the **Next Turn** field.
5. When using the **Follow Road** guidance method, select the **Follow Road Options** on-screen button, and press **ENTER** to choose from a page of options.

Airspace Alarms Setup Page

You can select and start the following airspace alarms: Class B, CTA/ Class C, TMA/Towers, Cntrl Zones/ Restricted Area/MOAs/Mode C Veils/Other SUAs—enables and disables the alarms. Select **On** to enable or **Off** to disable. Altitude Buffer—sets the buffer for the altitude alarm. Highlight and press **ENTER** to enter a different value.



To set an alarm:

1. Access the Setup page.
2. Use the **ROCKER** to highlight the field to the right of the alarm name you want to start, and press **ENTER**.
3. Highlight the next field to the right, and press **ENTER** to start.



When an alarm goes off, the alarm message appears on the screen and the unit emits five (5) beeps. Press **ENTER** to acknowledge.

Time Setup

The Time Setup Page allows you to set the time for your location.

To use the Time Setup feature:

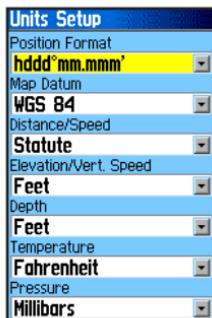
1. Access the Time Setup Page.
2. Highlight the Time Format field, and press **ENTER** to choose from 12 or 24 (Military Time) hour formats.

3. Highlight the Time Zone field, and press **ENTER** to choose the correct zone for your location. If you selected **Other**, you must enter the correct Universal Time Coordinate (UTC) for your location.
4. Daylight Savings Time offers choices of **Yes** or **No**.



Units Setup

The Units Setup Page allows you to select the units of measurement for your GPSMAP 96/96C.



To use the Units Setup feature:

1. Access the Units Setup Page.
2. Use the **ROCKER** and **ENTER** keys to highlight the various units fields, and select a unit from the lists.

Location Setup

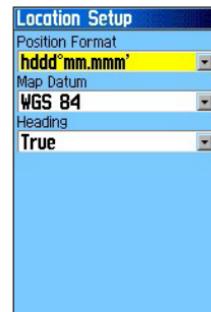
The Location Setup Page allows you to define settings for Position Format, Map Datum, Heading, and Magnetic Variation. To open the Location tab, press **MENU** twice to open the Main Menu. Select **Setup** from the vertical tab list. Then select **Location** from the row of tabs along the top of the page.

Refer to the Appendix of this guide for more information about location formats and map datum. Also visit the National Imagery and Mapping Agency at <http://www.nima.mil>, for more information on grids and datum.

Position Format—changes the coordinate system in which a given position reading is shown. 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). For additional information on Loran TD setup, see the Appendix.



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



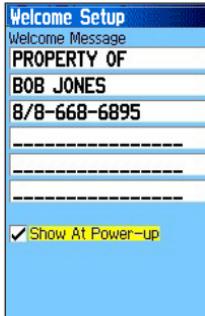
Map Datum—allows you to manually select the datum reference used to determine a given position. The default setting is WGS 84. The unit automatically chooses the best datum depending upon your chosen position format. Datums are used to describe geographic positions for surveying, mapping, and navigation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

Heading—allows you to select the reference used in calculating heading information. You can select from **Auto Mag Var**, **True**, **Grid**, and **User Mag Var**. **Auto Mag Var** provides magnetic north heading references that are automatically determined from your current position. **True** provides headings based upon a true north reference. **Grid** provides headings based on

a grid north reference (and is used in conjunction with the grid position formats). **User Mag Var** allows you to specify the magnetic variation at your current position and provides magnetic north heading references based upon the variation you enter. Enter the magnetic variation of your current position in the **Magnetic Variation** field if you have selected **User Mag Var** for the heading.



WARNING: The unit does not automatically calculate and update the magnetic variation at your present position if User Mag Var is selected. You must periodically update the magnetic variation as your position changes. Failure to update this setting can result in substantial differences between the information shown on your unit and external references, such as a magnetic Pointer.



To setup the Welcome Page:

1. Access the Welcome Page Setup Page.
2. Press **ENTER** to highlight the first character space of the message block. Use the **ROCKER** to select and enter text.
3. When completed, press **ENTER**, and then **QUIT** to close.
4. Turn your unit Off and then On again to view your Welcome Page message. You can edit the message by following steps 1 through 3 again.

Welcome Page Setup

The Welcome Page Setup Page allows you to insert a message on the Welcome Page (the first page to appear when you turn the unit on).

Proximity Waypoints

The Proximity Waypoints Page allows you to establish waypoints that have alarm circles around them at specified distances. The alarm helps you to avoid locations that are restricted or hazardous.



Proximity Waypoints List

To use the Proximity Waypoint feature:

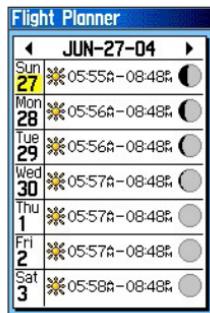
1. Access the Proximity Waypoints Page from the Main Menu by highlighting the **Proximity** icon, and pressing **ENTER**.
2. With the Name field highlighted, press **ENTER** to show the Find Menu. (See [page 84](#) for details on using the Find Feature.)

3. Select a waypoint from the Waypoints List or from any other group of map points in the Find Menu, and press **ENTER** to show the Information Page for that item.
4. Highlight the **Use** button at the bottom of the page and, press **ENTER** to place the point in the list on the Proximity Waypoints Page.
5. Use the **ROCKER** to highlight the Radius field if you want to enter a value different than the default of 1 mile.
6. Highlight the **Proximity Alarms** check box, and press **ENTER** to start the alarm feature. When you trigger an alarm, a tone sounds and a **Near Proximity Point** message appears. When you move outside the set radius, a **Leaving Proximity Point** message appears.
7. To remove or review a single entry, press **ENTER**. To remove all waypoints from the list, press **MENU**, and choose **Remove All**.



Flight Planner

The Flight Planner allows you to view the following for any given day and location: Sunrise/Sunset times, moon phase flight plans saved as routes and a day, week or month calendar format.



Planner: Week Format

To use the Flight Planner feature:

1. Access the Flight Planner from the Main Menu. The current week is shown.
2. To add a flight plan, use the **ROCKER** to highlight the day you want, and press **ENTER** to show the Page for that day.

3. Press **MENU** to show the Options Menu. Highlight **Add Route**, and press **ENTER** to show the Saved Routes Page.



Planner: Month Format

4. Select the type of route (flight plan) you want to place on the Day Format Page. (See [page 72](#) for details on using the Saved Routes Page.) With the selected route highlighted, press **MENU** to show the Options Menu. Select **Add To Planner**, and press **ENTER** to place the point reference on the Day Format Page.

5. To remove points from a Day Format press **MENU** to show the Options Menu. Select **Remove Points**, and press **ENTER** to show the Remove Points Options List.. Select **Remove All** or one of the **Older Than...** time frames, and press **ENTER**.
6. To view other calendar type formats, and Sun and Moon data for a specific date and location, press **MENU**. Use **ROCKER** to make your choice.

Alarm Clock

The Alarm Clock Feature allows you to use your GPSMAP 96/96C as an alarm clock. You can choose from different alarm tones, and use the **Snooze** feature to delay the alarm for an additional seven minutes.



To set the Alarm Clock:

1. Access the Alarm Clock from the Main Menu.
2. Highlight the Alarm Time field, and press **ENTER** to show the Number Keypad, and set the alarm time.
3. Highlight the Alarm Mode field, and press **ENTER** to show the On switch.
4. Highlight the **Alarm Beep** field, and select the type of alarm tone.
When you turn the alarm On, an “Alarm Set” message appears and allows you to turn the unit Off. When the Set Time arrives, the unit switches On and the alarm beeps. Press any key to silence the alarm.

Nav/Sonar Alarms Page

The Navigation/Sonar Alarms Pages of the Main Menu allows you to define alarm settings for navigation and sonar.

To access the Alarms Tab of the Main Menu:

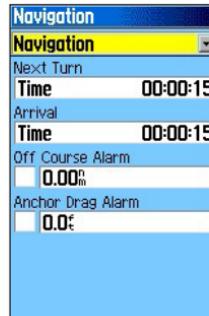
1. Press **MENU** twice to open the Main Menu.
2. Highlight the **Nav/Sonar Alarms** icon, and press **ENTER** to show these pages. To cycle between the pages, press the **ROCKER** left or right.

When an alarm is started, the alarm message appears on the screen and the unit emits five (5) beeps.

When you select an alarm to be persistent, the alarm message appears on the screen and the unit beeps until you press **ENTER** to acknowledge the alarm.

To set a persistent alarm:

Use the **ROCKER** to highlight the check box adjacent to those alarms that offer this feature and press **ENTER** to place a check mark in the box. To remove the check mark, repeat this process.



Navigation Alarms Page

Nav (Navigation) Alarms

Next Turn—sets an alarm to indicate next turn in route. Select **Off** for no Next Turn alarm. Select **Dist** to enter a specific distance. Select **Time** to enter a specific time before the turn for the alarm to go off. Select **Auto** for the unit to provide a Next Turn alarm at its discretion.

Arrival—sets an alarm to sound when you are a specified distance or time away from a destination waypoint. Select **Off** for no Arrival alarm. Select **Dist** to enter a specific distance. Select **Time** to enter a specific time before the destination for the alarm to go off. Select **Auto** for the unit to provide an Arrival alarm at its discretion.

Off Course—sets an alarm to sound when you are off course. Place a check mark in the box, then enter a distance.

Anchor Drag—sets an alarm to sound when you have exceeded a specified drift distance. Place a check mark to turn this alarm on and then enter a distance.

Sonar Alarms

Shallow Water—sets alarms to sound when you enter an area of water that is too shallow. Select **On** and then enter a specific distance. You must be receiving sonar NMEA data for this function to work.

Deep Water—sets alarms to sound when you enter an area of water that is too deep. Select **On** and then enter a specific distance. You must be receiving sonar NMEA data for this function to work.

Speed Filter—sets the Time Between Readings to Off, Auto, or User.



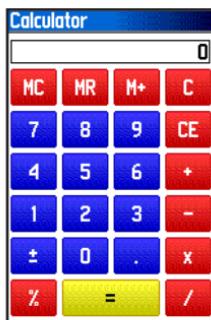
Sonar Alarms Page

Calculator

The Calculator Feature allows you to use your GPSMAP 96/96C as a calculator. You can select either a Standard or Scientific calculator and you can choose from degrees or radians using the Options Menu.

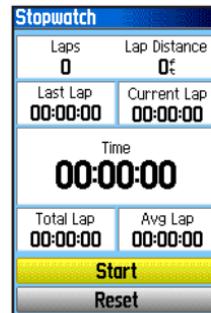
To use the Calculator:

1. Access the Calculator from the Main Menu.
2. Use the **ROCKER** and **ENTER** keys to operate the calculator.



Stopwatch

This feature allows you to use the GPSMAP 96/96C as a stopwatch, which includes a lap timer. You can choose to have the unit record the lap time based on distance.



Stopwatch Page

To start the stopwatch:

Use the **ROCKER** to highlight the **Start** field, and press **ENTER**.

To stop the stopwatch:

Use the **ROCKER** to highlight the **Stop** field, and press **ENTER**.

To use the lap feature:

With the stopwatch running, use the **ROCKER** to highlight the **Lap** field, and press **ENTER**.

To reset the stopwatch:

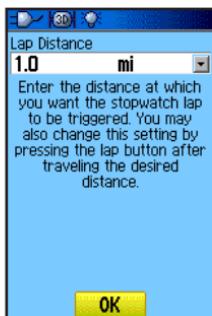
With the stopwatch stopped, use the **ROCKER** to highlight the **Reset** field, and press **ENTER**.

To time lap by distance:

Use the **ROCKER** to highlight the Options Menu, and press **ENTER**. Choose **Lap by Distance** and press **ENTER**. To return to 'Lap by Button Press,' repeat these same steps.

To set a lap distance value:

1. Use the **ROCKER** to highlight the Options Menu, and press **ENTER**. Choose **Set Lap Distance**, and press **ENTER**.
2. Use the **ROCKER** to highlight the field you wish to change, and press **ENTER**. Enter the new value, and press **ENTER**. When finished, highlight **OK**, and press **ENTER**.



Setting Lap By Distance

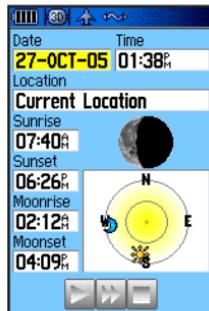
Sun and Moon

The Sun and Moon Tables provide you with a graphic depiction of the sun and moon relative to the Earth. Sun and moon positions can be shown for any time, date, and location.

The Sun and Moon Page also shows sunrise, sunset, moonrise and moonset times for the selected time, date and location. On-screen buttons allow you to animate the movement of the sun and moon and stop at a given time/date. The button to the left animates the sun and moon on the screen. The center button animates more rapidly, showing the phases of the moon. The right button stops animation.

To show sun and moon positions:

1. Access the Sun and Moon Page from the Main Menu.
2. To view the predictions for a different date and time, highlight those fields, and press **ENTER** to show the Number Keypad.
3. To view the predictions for a different location, highlight the Location field, and press **ENTER** to show the New Location options menu, and choose from the options shown.

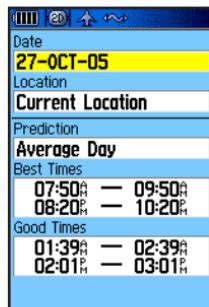


Hunt and Fish

The Hunt and Fish Tables provide you with a listing of predicted best times for hunting and fishing for a chosen date and location.

To show hunting and fishing predictions:

1. Access the Hunt and Fish Page from the Main Menu. The current date and location are shown in the date and location fields at the top of the page.
2. To view the predictions for a different date, highlight the **Date** field, and press **ENTER** to show the Number Keypad.



Hunt and Fish Page

3. To view the predictions for a different location, highlight the Location field, and press **ENTER** to show the New Location options menu.

Choose **Use Map** to select a point on the map using the Panning Arrow. Then press **ENTER** to show the table for that location. The Location field now states **Map Location**.

Choose **Use Find Menu** to select a point from the Find Feature database. Follow instructions for using the Find Feature beginning on [page 84](#). When a find item has been selected, highlight the **Use** button at the bottom of the item information page, and press **ENTER**. The Location field now shows the name of the find item.

4. To return to the current date, press **MENU**, and then **ENTER**.

Messages

The Message Log of the Main Menu shows a list of messages generated by your GPSMAP 96/96C. Use the **ROCKER** to scroll the entire list of messages on the Messages Page. You can also use the Message Filters page to filter the messages to show only a certain types of messages.



Messages Page

To view the messages:

1. Press **MENU** twice to open the Main Menu.
2. Highlight the **Message** icon using the **ROCKER** and press **ENTER** to view the list of messages. By default all messages are shown.
3. Use the **ROCKER** to highlight the message. Press **ENTER** to view detailed information about that message.
4. To clear the page of old messages, press **MENU** and then **ENTER**.

To show or hide messages using the Message Filters:

1. Open the Message Page. Press the **ROCKER** left or right to move to the "Message Filter" Page.
2. Use the **ROCKER** to highlight the message you want to hide, and press **Enter** to remove the check mark from the box adjacent to the message type.
3. Highlight the message type again, and press **ENTER** to show it again.
4. Access the Options Menu to restore default settings.

Specifications

Physical

Case: Rugged, fully gasketed, water resistant, IEC-529, IPX7 (Submersible 1 meter @ 30 minutes)

Size: 6.2”H x 2.7”W x 1.4”D

Weight: 7.6 ounces (153 g) with batteries installed

Display: GPSMAP 96 1.6”W x 2.2”H, 4-level Gray Monochrome (180 x 240 pixels) Backlit, High Contrast

GPSMAP 96C 1.5”W x 2.2”H, 256-color, high resolution, transreflective TFT (160 x 240 pixels) Backlit

Antenna: Built-in quad helix, remote antenna capability

Keypad: Nine multifunction backlit keys

Operating Range: 5 to 158°F (-15 to 70°C)¹

Performance

Receiver: WAAS enabled, 12 parallel channel

Acquisition Time: Warm: Approximately 15 seconds

Cold: Approximately 45 seconds

AutoLocate™: Approximately 2 minutes

Update Rate: Once per second, continuous

GPS Accuracy

Position: < 15 meters (49 feet), 95% typical²

Velocity: 0.05 meter/sec steady state DGPS Accuracy

Position: 3-5 meters (10-16 feet), 95% typical³

Velocity: 0.05 meter/sec steady state

Dynamics: Performs to specifications to 6 g's

Interfaces: NMEA 0183 version 2.3, RTCM SC-104 (for DGPS corrections) and RS-232 and USB for PC interface

Data Storage Life: Indefinite: no memory battery required

Map Storage: Internal; approximately GPSMAP 96 - 22 MB
GPSMAP 96C - 118 MB

Power

Source: Two 1.5 volt AA batteries or 12 V Adapter Cable, or up to 36 VDC external power

Battery Life: GPSMAP 96 - Up to 25 hours (typical use)⁴
GPSMAP 96C - Up to 40 hours (typical use)⁴

Specifications subject to change without notice.

1. The temperature rating of the GPSMAP 96/96C may exceed the usable range of some batteries. Some batteries can rupture at high temperatures.

2. Subject to accuracy degradation to 100m 2DRMS under the U.S. DoD imposed Selective Availability (SA) Program.

3. With optional Garmin GBR 21 Beacon Receiver input.

4. Alkaline batteries lose a significant amount of their capacity as the temperature decreases. Use Lithium batteries when operating the GPSMAP 96/96C in below-freezing conditions. Extensive use of screen backlighting and audible tones significantly reduce battery life.

Accessories

Carry Lanyard—provides convenient method for carrying the unit.

USB PC Interface Cable—provides connection to a PC for data transfer. Also includes, MapSource Trip and Waypoint Manager CD-ROM with USB Drivers.

Yoke Mount Kit—provides convenient placement in an aircraft.

Cigarette Lighter Adapter—provides auxiliary power from an automobile cigarette lighter. (Not shown)

GA 27C Remote GPS Antenna—allows enhanced satellite acquisition. Includes suction and magnetic mount options.

MapSource CD-ROMs—allows transfer of detailed map data.

Serial Port PC Interface Cable with AC Power—provides connection to a PC for data transfer.

Carrying Case—provides protection during transport of the unit.

Auto Navigation Kit—allows installation on a vehicle dash and includes Garmin MapSource City Select North America v. 6 CD-ROM.

Marine Mount Kit—allows installation on a boat.

Bicycle Handlebar Mount Kit—allows installation on bicycle handlebar.

Battery Pack—rechargeable, NiMH, AA battery kit, USA receptacle.

For a complete list of available accessories for use with GPSMAP 96/96C, refer to the Garmin web site:
<http://garmin.com/products/GPSMAP96/96C/>



CAUTION: Garmin Accessories have been designed and tested specifically for use with Garmin products. Accessories offered for sale by other manufacturers have not necessarily been tested or approved by Garmin for use with Garmin Products. Use of such accessories might cause damage to your Garmin Product and void the terms of the warranty. Using Garmin Accessories with other manufacturer's products is not recommended.

What are Map Datums?

A datum is a mathematical model of the Earth which approximates the shape of the Earth and enables calculations to be carried out in a consistent and accurate manner. The datum is physically represented by a framework of ground monuments (i.e. trig. stations) whose positions have been accurately measured and calculated on this reference surface. Lines of latitude and longitude on a map or chart are referenced to a specific map datum. Every chart has a map datum reference and the GPSMAP 96/96C can be set to match most of those commonly used.

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

What is Position Format?

Your current location can be viewed on the GPS in the form of coordinates. Since different maps and charts use different location formats, Garmin GPS units allow you to choose the correct coordinate system for the type of map you are using. The most common format is latitude and longitude, which is utilized by all Garmin units. On most models, you can choose to change the position format to use with other coordinate systems. UTM/UPS (Universal Transverse Mercator/Universal Polar Stereographic) are easy-to-use metric grids that are found on most USGS topographic quadrangle maps. Several other grids, including a user-definable grid (for the advanced user), can also be selected.

What is WAAS?

The Wide Area Augmentation System (WAAS) is an F.A.A. funded project to improve the overall integrity of the GPS signal. It is a space-based system that broadcasts integrity information and correction data as determined by ground reference stations (see DGPS below). At this time the system is still in the developmental stage with a goal of providing reliable signals with an accuracy of 7 meters (21-22 ft.) both horizontally and vertically 95% of the time. Current tests have shown the actual accuracy to be on the order of 2-3 meters. For more information, Go To <http://gps.faa.gov/Programs/WAAS/waas.htm>.

What is Differential GPS (DGPS)?

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

In addition to compensating for errors in position, these corrections signals can also correct for deliberate degradation of the accuracy of GPS by the U.S. Department of Defense under their Selective Availability (SA) program.

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



Location Setup Page

(Position Format List with Loran TD selected.)

To set up Loran TD from the Setup Menu:

1. Press **MENU** twice to show the Main Menu, then press again to show the Setup Menu.
2. Use the **ROCKER** to highlight the Location icon and press **ENTER** to show the Location Setup Page.
2. Highlight the “Position Format” field, and press **ENTER** to show the format list.
3. Highlight “Loran TD” press **ENTER** to show the Loran Setup Page.
4. To change the settings of any of the five fields, highlight the field, press **ENTER** select or enter the setting, then press **ENTER**.
6. When finished, highlight **Save**, and press **ENTER**.



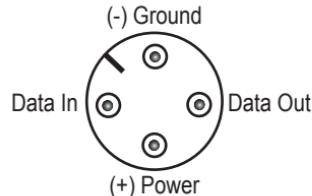
Loran TD Setup Page

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 GPSMAP 96/96C is not relying on the LORAN signal for navigation and actually converts the TD coordinate to a useful LAT/LON coordinate before storing the waypoint to memory or using it for navigation. Because of this, the unit can navigate to a TD coordinate anywhere in the world.

You must know your GRI chain number and secondary stations to create a LORAN TD position. For more information please read our LORAN TD Position Format Handbook, available at the Garmin Web site, at www.garmin.com/support/userManual.html.

Interface formats are selected from the Interface Setup on [page 104](#) of this manual. The input/output lines on your GPSMAP 96/96C are RS-232 compatible, allowing easy interface to a wide range of external devices, including PC's, differential beacon receivers, marine autopilots and /or a second GPS receiver.

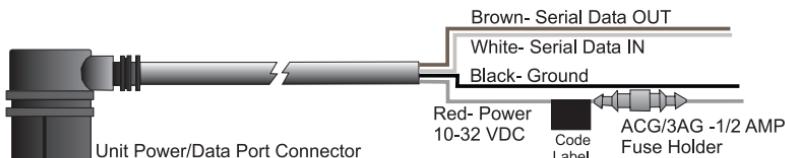
The NMEA 0183 version 3.01 interface format is supported by the GPSMAP 96/96C and enables the unit to drive up to three NMEA devices.



Unit Connector View

NMEA 0183 Version 3.01 Approved Sentences:

GPGGA, GPGLL, GPGSA, GPGSV, GPRMB, GPRMC, GPRTE, GPVTG, GPWPL, GPBOD



Garmin Proprietary Sentences:

PGRME (estimated error), PGRMM (datum string), PGRMZ (altitude), PSLIB (beacon receiver control)

DGPS (Differential GPS) corrections are accepted in RTCM SC-104 version 2.0 format through the 'Data In' line. The Garmin GBR 21 is the recommended beacon receiver for use with the GPSMAP 96/96C. Other beacon receivers with the correct RTCM format can be used, but may not correctly show status or allow tuning control from the GPS unit.

The USB Interface Cable provided with this unit allows you to connect your GPSMAP 96/96C to a PC-compatible computer's USB port.

Interfacing the GPSMAP 96/96C

The GPSMAP 96/96C is provided with interface connection to a PC using either a serial port or USB connector cable. Connection to your computer is necessary for downloading of detailed map from Garmin MapSource® and Jeppesen® Map Data CDs. You can also save routes, waypoints, and tracks from the GPSMAP 96/96C to MapSource. Refer to

the MapSource User's Guide provided with your MapSource CDs.

To connect to your computer using the USB connector:

1. Lift the USB protective cover from the back of the GPSMAP 96/96C and insert the smaller connector on the USB cable (provided with the unit) into the matching port.
2. Connect the remaining cable end to your PC USB port.
3. The USB connection is automatically set for Garmin format.

To connect to your computer using a Serial Port connector:

1. Lift the Serial Port protective cover from the back of the GPSMAP 96/96C and insert the round indexed connector on the cable into the matching port.
2. Connect the remaining cable end to your PC Serial port or other appropriate device.
3. Set your GPSMAP 96/96C interface setting to the appropriate interface format. Refer to Interface Setup on [page 104](#).

Messages

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

Alarm Clock—the alarm clock has sounded.

Antenna Shorted to Ground—the external GPS antenna has an electrical connection problem. Contact Garmin Product Support.

Approaching Target Altitude—within 1,000 feet of final VNAV target altitude.

Approaching Turn—you are nearing a turn in a route.

Approaching VNAV Profile—you are within one minute of reaching the initial VNAV decent point.

Arriving at Destination—you are nearing your destination.

Batteries Low—the batteries needs to be replaced.

Basemap Failed Unit Needs Repair—there is an internal problem with your unit. Contact Garmin Product Support to have the unit serviced.

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

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

Detail Maps Don't Support Routing—maps that are loaded on the data card do not support automatic route calculation.

Dragging Anchor—the distance set in the Anchor Drag Alarm is exceeded.

Drift Alarm—the water depth has changed by the amount entered in the Drift Alarm setup.

Lost Satellite Reception—the unit is unable to receive satellite signals.

Memory Full—unit memory is full, no further data can be saved.

Memory (RAM) Failed Unit Needs Repair—there is an internal problem with your unit. Contact Garmin Product Support to have the unit serviced.

Memory (ROM) Failed Unit Needs Repair—there is an internal problem with your unit. Contact Garmin Product Support to have the unit serviced.

Near Proximity Point—you have reached the distance set for a proximity waypoint.

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

No Roads Near Destination—the destination for the road route you tried to calculate is not near any roads. Select a different destination.

No Roads Near Starting Point—the start location for the road route you tried to calculate is not near any roads. Select a different start location.

No DGPS Position—no differential connection data is available, or not enough data is available to calculate a DGPS position.

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

None Found—no data matched the search criteria.

Off Course—you are off course by the distance set in the Off Course Alarm.

Proximity Memory Full—no additional proximity waypoints can be saved.

Proximity Radius Overlaps—the radius of two proximity waypoints overlap.

Route Already Exists—you have entered a route name that already exists.

Route Calculation Error—no route can be calculated.

Route Memory Full—no additional routes can be saved.

Route Truncated—uploaded route from another device has more than 250 waypoints.

Route Waypoint Memory Full—no additional route waypoints can be saved.

Steep Turn—approaching a turn that requires a bank angle in excess of 25 degrees to stay on course.

Sunrise, Switching to Day Mode—the unit is switching to Day Mode.

Sunset, Switching to Night Mode—the unit is switching to Night Mode

Track Already Exists—a saved track with the same name already exists.

Track Log Full—the track log is full and track recording was turned off. To record more track points, you need to clear the track log and turn track recording on.

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

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

Transfer Complete—data transfer was completed.

USB Connected—the USB cable was recently plugged in.

User Timer Expired—the Timer Alarm value has counted down to zero.

VNAV Cancelled—VNAV function has been cancelled due to a change in the active route.

Waypoint Already Exists—a waypoint with the same name already exists.

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

Data Field Options

The following list provides a brief description of each data field option. Some of these options are supported only by devices interfaced to your GPSMAP 96/96C.

Accuracy—the current accuracy of your GPS determined location.

Altitude—the current altitude you are at.

Battery Timer—the time remaining on the battery before it is fully discharged.

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

Course—the your path of travel from your starting location to a destination.

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

Cross Track—the distance you are off your course in either direction, left or right.

Depth (Marine Only)—the depth of water from sonar NMEA input.

Dest Wpt—see **Waypoint (Destination)**.

Distance (Destination)—the entire distance, from beginning to end, of a route.

Distance (Next)—the distance to the next point on a route.

ETA (Destination)—Estimated Time of Arrival. The estimated time you will reach your destination.

ETA (Next)—Estimated Time of Arrival. The estimated time you will reach the next point on your route.

ETE (Destination)—Estimated Time Enroute. The estimated time required to reach your destination.

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

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

Flight Timer—the time you have been in flight.

GPS Status—the current status of the GPS receiver, such as “3D GPS.”

Location (Lat/Lon)—your current location as latitude/longitude coordinates.

Location (Selected)—your current location described in the selected units of measure (other than lat/lon).

Next Course—the course your route will take you on after you reach the next waypoint.

Next Turn—the direction of the next turn on an active route.

Next Wpt—see **Waypoint (Next)**.

Odometer—the total distance traveled since the Odometer was reset.

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

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

Steer—see **Course to Steer**.

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

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

Time—the current time and date. It can be shown in 12-hour or 24-hour format in local time or universal (UTC) time.

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

Ttl Avg. Speed (Moving)—the average speed while moving since the last reset of the Trip Computer. Appears as **Mov Avg Spd**.

Trip Avg. Speed (Total)—the total average speed traveled since the last reset of the Trip Computer. Shown as **Ttl Avg Spd**.

Trip Odometer—the total distance traveled since the Trip Computer was reset.

Trip Timer (Moving)—the length of time your vehicle has been in motion, since the Trip Computer was reset. Appears as **Move Timer**.

Trip Timer (Stopped)—the length of time your vehicle has been stopped, since the Trip Computer was reset.

Trip Timer (Total)—the total time the unit has been tracking since the Trip Computer was reset.

Ttl Avg Spd—see **Trip Avg. Speed (Total)**.

Turn—the distance between Bearing (BRG) and Track (TRG). L indicates you should turn left. R indicates you should turn right. The degrees indicates the difference angle and the number of degrees you should turn.

User Timer—the timer you set in the Main Menu.

Velocity Made Good—the rate of closure on a destination based on your current speed and course of travel. Shown as **VMG**.

Vertical Speed—the rate of climb or descent.

Voltage—the direct current voltage level of an external power source.

Water Speed (Marine Only)—the data acquired from measurement devices interfaced to the unit is used to calculate your current speed over water.

Water Temperature (Marine Only)—the temperature of water at a measured depth using measurement devices interfaced to the unit.

Waypoint (Destination)—the last point on a route, your destination. Appears as **Dest Wpt**.

Waypoint (Next)—the next waypoint in your route. Shown as **Next Wpt**.

License Agreement and Warranty

This section of the Appendix contains information about your license agreement and warranty for the GPSMAP 96/96C.

Software License Agreement

BY USING THE GPSMAP 96/96C, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

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

You acknowledge that the Software is the property of Garmin and is protected under the United States of America copyright laws and international copyright treaties. You further acknowledge that the structure, organization, and code of the Software are valuable trade secrets of Garmin and that the Software in source code form remains a valuable trade secret

of Garmin. You agree not to decompile, disassemble, modify, reverse assemble, reverse engineer, or reduce to human readable form the Software or any part thereof or create any derivative works based on the Software. You agree not to export or re-export the Software to any country in violation of the export control laws of the United States of America.

Product Registration

Help us better support you by completing our online registration today! Have the serial number of your GPSMAP 96/96C handy and connect to our Web site (www.garmin.com). Look for the Product Registration link on our Home page.

Use this area to record the serial number (8-digit number located on the back of the box) in case your GPSMAP 96/96C is lost, stolen, or needs service. Keep your original sales receipt in a safe place or attach a photocopy inside the manual.

Serial Number: _____

Contact Garmin

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

Limited Warranty

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

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

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

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

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.

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

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

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Unit 5, The Quadrangle, Abbey Park Industrial Estate,
Romsey, SO51 9DL U.K.
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Fax 44/0870.8501251

The Garmin GPSMAP 96/96C has no user-serviceable parts. Should you ever encounter a problem with your unit, please take it to an authorized Garmin dealer for repairs.

The GPSMAP 96/96C is fastened shut with screws. Any attempt to open the case to change or modify the unit in any way will void your warranty and may result in permanent damage to the equipment.

FCC Compliance

The GPSMAP 96/96C complies with Part 15 of the FCC interference limits for Class B digital devices FOR HOME OR OFFICE USE. These limits are designed to provide more reasonable protection against harmful interference in a residential installation, and are more stringent than “outdoor” requirements.

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

This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

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

The GPSMAP 96/96C 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.

Declaration of Conformity (DoC)

Hereby, Garmin, declares that the GPSMAP 96/96C is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

To view the full Declaration of Conformity, see the Garmin Web site for your Garmin product: www.garmin.com/products/gpsmap96/ or www.garmin.com/products/gpsmap96c/. Click **Manuals**, and then select the **Declaration of Conformity** link.

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