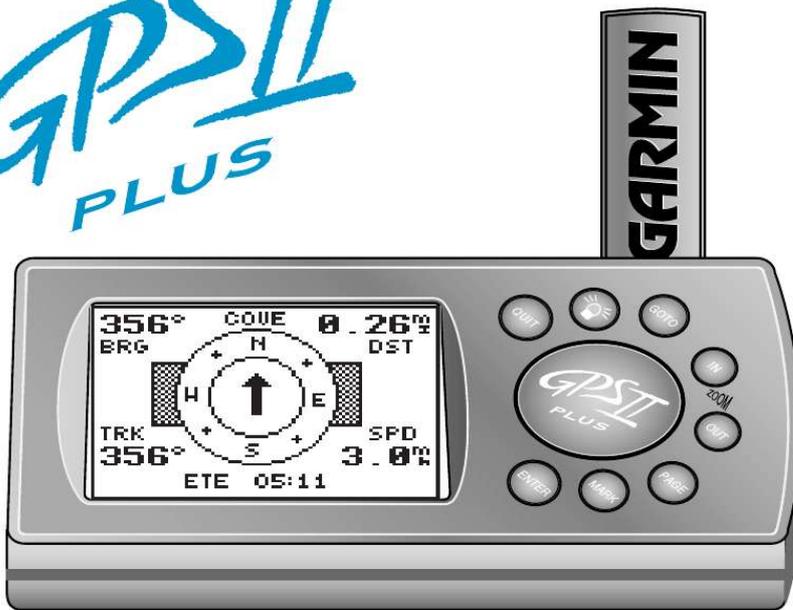# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for GARMIN GPS II PLUS. You'll find the answers to all your questions on the GARMIN GPS II PLUS in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

> **User manual GARMIN GPS II PLUS**
> **User guide GARMIN GPS II PLUS**
> **Operating instructions GARMIN GPS II PLUS**
> **Instructions for use GARMIN GPS II PLUS**
> **Instruction manual GARMIN GPS II PLUS**

Manual abstract:

@@GARMIN, GPS II+, Personal Navigator, AutoLocate, TracBack, and PhaseTrac12 are all trademarks of GARMIN Corporation and may not be used without the expressed permission of GARMIN. March 1997 Part # 190-00130-00 Rev. A Printed in Taiwan. Thank You! Thank you for choosing the GARMIN GPS II+ --the smallest, easiest-to-use GPS navigator for outdoor use! The GPS II+ represents GARMIN's continuing commitment to provide quality navigation information in a versatile and userfriendly flexible design you'll enjoy for years. To get the most from your new GPS, take the time to read through the owner's manual in order to understand the operating features of the GPS II+. This manual is organized into three sections for your convenience: Section One takes you through step-by-step instructions to initialize the receiver for first-time use. Section Two (Getting Started Tour) introduces you to the basic features of the unit and provides a quick-start orientation to the GPS II+. Section Three (Reference) provides details about the advanced features and operations of the GPS II+ by topic. Before getting started with your GPS, check to see that your GARMIN GPS II+ package includes the following items. If you are missing any parts, please contact your dealer immediately.

Standard Package: · GPS II+ Unit · Wrist Strap · GPS II+ Owner's Manual · Velcro Mount i Cautions The Global Positioning System (GPS) is operated by the government of the United States, which is solely responsible for its accuracy and maintenance. The system is subject to changes which could affect the accuracy and performance of all GPS equipment. Although the GPS II+ is a precision electronic NAVigation AID (NAVAID), any NAVAID can be misused or misinterpreted and, therefore, become unsafe. For vehicular applications, it's the sole responsibility of the owner/operator of the GPS II+ to secure the GPS unit so that it will not cause damage or personal injury in the event of an accident. Do not mount the GPS II+ over airbag panels or in a place where the driver or passengers are likely to have an impact with it in an accident or collision.

The mounting hardware provided by GARMIN is not warranted against collision damage or the consequences thereof. For vehicular operations, it is the sole responsibility of the operator of the vehicle to operate his or her vehicle in a safe manner, maintain full surveillance of all driving conditions at all times, and never become distracted by the GPS II+ to the exclusion of safe operating practices. It is unsafe to operate the GPS II+ while you are driving. Failure by the operator of a vehicle equipped with a GPS II+ to pay full attention to operating the vehicle and road conditions while the vehicle is in motion could result in an accident or collision with property damage and personal injury. ! ! ! ii FCC Compliance This device complies with Part 15 of the FCC limits for Class B digital devices.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to other equipment, which can be determined by turning the affected equipment off and on, the user is encouraged to try and correct the interference by relocating the equipment or connecting the equipment to a different circuit than the affected equipment. Consult an authorized dealer or other qualified service technician for additional help if these remedies do not correct the problem. Operation is subject to the following conditions: (1) This device cannot cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The GPS II+ does not contain any user-serviceable parts. Repairs should only be made by an authorized GARMIN service center. Unauthorized repairs or modifications could void your warranty and your authority to operate this device under Part 15 regulations. iii Table of Contents SECTION ONE What is GPS? . .

What is GPS? What is GPS? GPS is a system of 24 satellites which circle the earth twice a day in a very precise orbit and transmit information to earth. The GPS II+ must continuously "see" at least three of these satellites to calculate your position and track your movement. By using an almanac (a timetable of satellite numbers and their orbits) stored in the receiver's memory, the GPS II+ can determine the distance and position of any GPS satellite and use this information to compute your position. Your GPS receiver can only see satellites above the horizon, so it needs to know what satellites to look for at any given time. To use this almanac data, your GPS needs to either be told its general location or given the opportunity to find itself, or "initialize." Once you initialize the unit to a position, it will usually compute a fix within a few minutes. We'll show you how to initialize your new GPS on p.

7. Initialization is only necessary under the following conditions: · The first time you use your receiver (from the factory). · After the receiver has been moved over 500 miles from the last time you used it (with the power off). · If the receiver's memory has been cleared and all stored data has been lost. 1 Satellite Acquisition Satellite Acquisition Because the GPS II+ relies on satellite signals to provide you with navigation guidance, the receiver needs to have an unobstructed, clear view of the sky for best performance.

In a nutshell, the GPS receiver's view of the sky will generally determine how fast you get a position fix--or if you get a fix at all. GPS signals are relatively weak and do not travel through rocks, buildings, people, metal, or heavy tree cover, so remember to keep a clear view of the sky at all times for best performance. Once the GPS II+ has calculated a position fix, you'll usually have anywhere from four to twelve satellites in view. The receiver will then continuously select the best satellites in view to update your position. If some of the satellites in view get blocked or "shaded," the receiver can simply use an alternate satellite to maintain the position fix.

Although a GPS receiver needs four satellites to provide a three-dimensional (3D) fix, it can maintain a two-dimensional (2D) fix with only three satellites. A threedimensional fix means the unit knows its latitude, longitude, and altitude, while a two-dimensional fix means the unit knows only its latitude and longitude. To prevent accidental battery power loss, the GPS II+ will automatically shut off 10 minutes after the last keystroke if the unit is not tracking at least one satellite and has not acquired a position fix. 2 Battery Installation Battery Installation The GPS II+ operates on 4 AA batteries (not included), which are installed at the base of the unit. These batteries provide up to 24 hours of use. To install the batteries: 1. Flip up the metal ring at the base of the unit, and turn the ring 90° counter clockwise. 2. Install the batteries (Fig. 3), and close the battery compartment door.

3. Lock the door in the closed position by rotating the metal ring 90° clockwise. Polarity Markings Battery life varies due to a variety of factors, including temperature and backlighting. You may find that the battery life varies in different conditions and that lithium batteries provide longer life in colder conditions. When replacing the GPS II+'s batteries, observe the polarity markings engraved in the plastic case. An internal 10-year lithium battery will retain your data while you're changing batteries. Fig. 3 3 Unit Features Antenna Function Keys Power Key (red) Rocker Keypad LCD Display To change the screen orientation, press and hold the page key. Battery Door 4 Keypad Usage/Operating Terms (POWER)-- Red key turns the unit on and off, and controls three levels of screen backlighting intensity. (PAGE)-- Scrolls main pages in sequence and returns display from a submenu page to a main page.

Press and hold this key to change screen orientation. (MARK)-- Captures your present position and displays the mark position window. (GOTO)-- Displays the GOTO waypoint window, allowing you to select the destination waypoint. (ENTER)-- Activates highlighted fields and confirms menu options and data entry. (QUIT)-- Returns the display to a previous page or restores a data field's previous value.

(IN and OUT)-- Provides 12 adjustable fields by selecting either the in or out keys from the Map Page. (KEYPAD)-- Controls the movement of the cursor and is used to select options and positions, and to enter data. Mode' Field Fig. 5 CURSOR-- A solid black bar which can be moved up, down, left, and right with the keypad to select individual fields. DEFAULT-- A system-selected format, built into a software program or the unit's memory, that will be followed unless the user chooses a different setting.

FIELD-- The location on a page where a group of characters or option is entered and displayed (Fig. 5). HIGHLIGHT-- The act of using the cursor to select a field for the purpose of entering data. SCROLL-- The act of moving through characters or options from a selected field. 5 Screen Orientation Screen Orientation The GPS II+ has a unique screen orientation feature for switching from a horizontal mounting position in a vehicle or on a bike to a vertical orientation for handheld outdoor use, such as hunting or hiking. The GPS II+'s rocker keypad and single-use keys are designed HORIZONTAL to function identically, no matter if you're using the up unit vertically (Fig. 6a) or horizontally (Fig. 6b). left right To change the screen orientation: Fig. 6a 1.

Press and hold PAGE. down VERTICAL Data Entry The arrow keypad is used for all data entry. Use the UP and DOWN keys to select letters, numbers, and menu options; use the LEFT and RIGHT keys to move the cursor forward or backward along the line (Fig. 6c). Press ENTER to confirm your entry. 6 Fig. 6b up left down Fig. 6c right Initializing the Receiver/Power On Initializing Y39;s start with the Satellite Page, which is the page you'll view while your unit is getting a position fix. If you're not already on this page, press PAGE or QUIT until it appears. The Satellite Page shows you status information that helps you understand what the receiver is doing at any given time, and it's a page that you'll want to occasionally refer back to as you use your unit.

It features a sky view of available satellites, corresponding signal strength bars, the status of your current position fix (acquiring, 2D, 3D, etc.), and your estimated position error (EPE). You can also tell how much battery power is remaining (Fig. 11), and you can adjust the screen contrast by pressing the rocker keypad. The signal strength bars give you an indication of what satellites are visible to the receiver, whether or not they're being used to calculate a position fix, and the signal quality.

11 Getting Started Tour Position Page The Position Page (Fig. 12a) shows you where you are, what direction you're heading, and how fast you're going--and it's the page you'll want to use when you don't have an active destination selected. A graphic compass display at the top of the page shows your direction of travel while you're moving, while five data fields below display your track and speed, a trip odometer, and your position and altitude. The `rip' and `altitude' fields are userselectable, which means you can change them to display other navigation information. We'll cover those fields more in the reference section. Marking a Position GPS is really about marking and going to places called waypoints. Before we can use our GPS II+ to guide us somewhere, we have to mark a position as a waypoint. (Your GPS II+ can hold up to 500 waypoints.) To mark your present position: Fig. 12b 12 1. Press the MARK key. The mark position page will appear, with a default three-digit name for the new waypoint in the upper-left portion of the page (Fig. 12b). Fig. 12a Getting Started Tour To rename the waypoint: 1.

Use the keypad to highlight the name field, and press ENTER. 2. Enter the waypoint name `HOME' (Fig. 13a), and press ENTER. (See p. 6 for data entry.) The `waypoint symbol' field will become highlighted. Each waypoint may also be assigned a custom waypoint symbol for easy waypoint recognition on the map page.

To change the waypoint symbol: 1. Highlight the waypoint symbol field (Fig. 13b), and press ENTER. 2. Select the house symbol, and press ENTER. 3. Move the cursor to the `DONE?' prompt, and press ENTER. 4. Press ENTER to confirm the `SAVE?' prompt. Fig. 13a The mark Position Page will be replaced by the Position Page (the page displayed before pressing MARK). The `HOME' waypoint is now stored in the GPS II+'s memory (which is maintained by an internal lithium battery).

Fig. 13b 13 Getting Started Tour Using the Position Page Now that you've marked a position, it's time to take a brisk walk using the Position and Map Pages to watch your every move. You should still be on the Position Page. To get the most from this tutorial, walk in a straight line for 3-4 minutes at a fast pace and watch the Position Page. (Because the GPS system typically has a margin of error of approximately 15 meters, you'll need to walk this long to ensure that you travel far enough to register useful information. You'll also get a better indication of how the GPS II+'s steering guidance and mapping features work to guide you.) You'll see that the direction you are moving (track), your speed, and how far you've gone displayed in the middle of the screen, just below the graphic compass display. The latitude, longitude and approximate altitude of your position are displayed at the bottom of the page, with the time of day displayed below. To continue the tour, let's move on to the next page: 1. Press PAGE.

You can even time yourself with the GPS II+'s on-screen clock. 14 Getting Started Tour Map Page The GPS II+'s next page, the Map Page, shows your movement as a real-time track log (an electronic breadcrumb trail that "flashes" at a map scale of less than 5 miles), and your present position as a diamond icon in the center of the map. Use the zoom keys (IN and OUT) to change the map scale until you see the waypoint you just created (`HOME'). We'll cover more about this page in the reference section. 1. Now turn approximately 90º to your right and continue walking at a fast pace for another 2-3 minutes. Notice how the display changes, always keeping the direction you are moving at the top of the map (Fig. 15b). Fig. 15a Fig.

15b 15 Getting Started Tour Going To a Waypoint Once you've stored a waypoint in memory, you can use the GPS II+ to guide you to it by performing a simple GOTO. A GOTO is really nothing more than a straightline course from your present position to the destination you've selected. To see how it works, let's try navigating back to our starting position, the HOME waypoint. Fig. 16a To select a GOTO destination: 1.

Press GOTO. 2. Highlight the `HOME' waypoint, (Fig. 16a) and press ENTER. You'll notice that you'll automatically return to the Map Page, and a straight line will connect your current position to the position of the GOTO waypoint (16b).

To continue the tour, let's move on to the next page: 1. Press PAGE. Fig. 16b 16 Getting Started Tour Compass Page Whenever you select a destination waypoint, the GPS II+ provides graphic steering guidance with the Compass Page (the default navigation page). The `compass ring' in the middle of the page shows your direction of travel while you're moving (indicated by the top of the ring), and the pointer arrow points to your destination (selected waypoint). As you move toward `HOME', notice how the compass ring and the pointer arrow provide a clear picture of the direction you're moving and the direction of `HOME.' The bearing and distance to a waypoint are displayed at the top of the screen, and your current track and speed are shown below. The default `ETE' field, at the bottom of the screen between the `track' and `speed' fields (Fig. 17a), is a user-selectable field that can provide a variety of navigation information. We'll cover more about that field in the reference section (see page 55).

As you get close to `HOME', you'll be alerted to press PAGE. The GPS II+ will give you the message "Approaching HOME" (Fig. 17b). Once you've arrived, you'll notice the distance field will read 0.00. Fig. 17a Fig. 17b 17 Getting Started Tour Menu Page You've already seen the first four pages in action by acquiring satellites, marking a position, and navigating to a destination. The last page available from the main page sequence is the Menu Page (Fig. 18a), which provides access to the GPS II+'s waypoint management, route, and setup features.

To view the Menu Page: Fig. 18a 1. Press PAGE. To select a menu option: 1. Highlight the desired field, and press ENTER (18b).

To return to the Menu Page: 1. Press QUIT. Fig. 18b 18 Getting Started Tour Clearing the Track Log After you've practiced and used the GPS II+ for a few trips, you may find that your map display has become cluttered with track plots. To get a feel for how the map and track features work, let's clear the track log (the plot points left on the Map Page) we've just created during the Getting Started tour.

To clear the track log: 1. Scroll to the Map Page, and press ENTER. 2. Highlight the `track setup' field, and press ENTER. 3. Highlight the `clear log?' field (Fig. 19a), and press ENTER. 4. Highlight `Yes?', and press ENTER. Fig.

19a Congratulations! You've just completed the Getting Started Tour! You now know enough about the GPS II+ to go out and have some fun with it. We strongly recommend that you read on and explore the Reference section, which contains a closer look at all of the exciting features of the GPS II+. To turn your GPS II+ off: 1. Press and hold the red power key (Fig. 19a). The unit will count down for three seconds and then turn off. Fig. 19b 19 Reference Satellite Page The GPS II+'s Satellite Page provides a visual reference of satellite acquisition and position. As the receiver locks onto satellites, a signal strength bar will appear for each satellite in view, with the appropriate satellite number (1-32) underneath each bar. The progress of satellite acquisition is shown in three stages: · No signal strength bars-- the receiver is looking for the satellites indicated.

· Hollow signal strength bars-- the receiver has found the satellite(s) and is collecting data (Fig. 20a). · Solid signal strength bars-- the receiver has collected the necessary data and the satellite(s) is ready for use. Each satellite has a 30-second data transmission that must be collected (hollow bar status) before that satellite may be used for navigation (solid bar status). Once a fix has been calculated, the GPS II+ will then update your position, track, and speed by selecting and using the best satellites in view.

You can also access the GPS II+'s contrast feature from this page (see p. 75). To adjust the screen contrast: 1.

Press the rocker keypad, adjust the level of contrast (Fig. 20b), and press ENTER.

Fig. 20a Fig. 20b 20 Reference Sky View and Signal Strength Bars The sky view and signal strength bars give you an indication of what satellites are visible to the receiver, whether or not they are being used to calculate a position fix, and the signal quality. The satellite sky view shows a bird's-eye view of the position of each available satellite relative to the unit's last known position. The outer circle represents the horizon (north up); the inner circle 45º above the horizon; and the center point directly overhead. You can use the sky view to help determine if any satellites are being blocked, and whether you have a current position fix (indicated by a '2D NAV' or '3D NAV' in the status field) (Fig. 21b). You can also set the sky view to a track up configuration by changing the "orientation" option on the Map Page. (See p. 67 for setup instructions.

) When the receiver is looking for a particular satellite, the corresponding signal strength bar will be blank and the sky view indicator will be highlighted. Once the receiver has found the satellite, a hollow signal strength bar will appear, indicating that the satellite has been found and the receiver is collecting data from it (Fig. 21a). The satellite number in the sky view will no longer appear highlighted. As soon as the GPS II+ has collected the necessary data to calculate a fix, the status field will indicate a 2D or 3D status. Fig. 21a Fig. 21b 21 Reference Receiver Status and EPE Receiver status is indicated at the top left of the page, with the current horizontal accuracy (estimated position error, in feet or meters) at the top right. The status will be shown as one of the following conditions: Searching-- the GPS II+ is looking for any available satellites in view (Fig. 22a).

AutoLocate-- the GPS II+ is initializing and collecting new almanac data. This process can take 5 minutes, depending on the satellites currently in view. Acquiring-- the receiver is collecting data from available satellites, but has not collected enough data to calculate a 2D fix. 2D Navigation-- at least three satellites with good geometry have been locked onto and a 2-dimensional position fix (latitude and longitude) is being calculated. '2D Diff' will appear when you are receiving DGPS corrections in 2D mode.

3D Navigation-- at least four satellites with good geometry have been locked onto, and your position is now being calculated in latitude, longitude and altitude. '3D Diff' will appear when you are receiving DGPS corrections in 3D mode. Poor GPS Coverage-- the receiver isn't tracking enough satellites for a 2D or 3D fix due to bad satellite geometry (Fig. 22b). Fig.

22a Fig. 22b 22 Reference Not Usable-- the receiver is unusable, possibly due to incorrect initialization or abnormal satellite conditions. Turn the unit off and back on to reset, and reinitialize the receiver if necessary. Simulator-- the receiver is in simulator mode (Fig. 23a). EZinit Option Prompt The Satellite Page also provides access to the EZinit prompt whenever a position fix has not been calculated (Fig. 23b). (The unit must be in searching, AutoLocate, acquiring, simulator, or poor coverage mode.) This allows you to reinitialize the unit (see p. 7), and is useful if you have traveled over 500 miles with the receiver off and must initialize your new position.

(The EZinit prompt will automatically appear if the receiver needs to be initialized. The prompt may also appear during normal use if the antenna is shaded or the unit is indoors.) Fig. 23a Fig. 23b 23 Reference Battery Level Indicator The Satellite Page also features a battery level indicator, located to the left of the sky view, which displays the strength of the unit's batteries (Fig. 24). The battery indicator will not appear if the receiver is operating off external power. Fig. 24 ! The battery level indicator is calibrated for alkaline batteries. Ni-Cad and lithium batteries will display the battery level differently due to voltage differences.

No other receiver functions are affected. The GPS II+ features an internal 10-year lithium battery that will maintain the unit's memory when the receiver is not running off batteries or external power. 24 Reference Screen Backlighting The GPS II+'s backlight feature illuminates the screen display for a user-defined interval (the default is 15 seconds) after every keystroke. There are three stages of backlighting. When backlighting is on, a bulb icon will appear at the bottom left of the sky view (Fig.

25). To adjust the duration of the screen backlighting, refer to the operation setup section (see p. 75). To turn the screen backlighting on: 1. Cycle through the three levels of backlight by pressing the red power key.

Fig. 25 Note: Using the screen backlighting can greatly reduce battery life. If you're using your GPS primarily in daylight hours, you should keep the backlight timeout at the default 15-second setting. To turn the screen backlighting off: 1. Press the red power key. Whenever the GPS II+'s backlighting is off, the bulb icon disappears from the Satellite Page. 25 Reference Position Page The second page in the GPS II+'s main page sequence is the Position Page. This page shows you where you are, what direction you're heading, and how fast you're going, and it's most useful when you are traveling without an active destination waypoint. The graphic heading display at the top of the page indicates the direction you're heading (only while you're moving). Directly below this display are the track, speed, and trip odometer fields (default).

Track is the compass direction representing your course over the ground, and speed is how fast you're moving. The lower left-hand corner of the page shows your current latitude and longitude in degrees and minutes. The GPS II+ uses this basic information to mark exact positions as waypoints, which help guide you from one place to another. The lower right-hand corner of the page contains the altitude field (default). Below that field is a 12- or 24-hour clock. Both the trip odometer and the altitude fields are user selectable, and both offer a trip odometer, trip timer, and elapsed time. This way, you can always be sure of viewing this information regardless of the option you've selected to view in the other user-selectable field. The graphic compass display is designed to show your current track and doesn't serve as a true magnetic compass while you're standing still. 26 Reference The following user-selectable options are available on the Position Page: Trip Odometer (TRIP)-- total distance traveled since last reset. Trip Timer (TTIME)-- total (cumulative) time in which a ground speed has been maintained since last reset.

Elapsed Time (ELPSD)-- hours and minutes since last reset. Average Speed (AVSPD)-- average speed traveled.

Maximum Speed (MXSPD)-- maximum speed traveled since last reset. Altitude (ALT)-- vertical distance above sea level. To reset a timer, speed measurement, or odometer: 1.

Highlight the user-selectable field, and press ENTER. 2. Press ENTER to confirm the `RESET?' prompt, or QUIT to exit. The trip odometer, trip timer, and average speed fields are linked, so resetting one of these options in one user-selectable field will automatically reset the corresponding data in the other. This allows the information provided in these fields to always be relative to your current trip.

The position format and units of measure for speed, distance, position, and altitude are all user-selectable through the navigation setup page (see p. 76). The 12/24 hour clock and time offset options are available from the system setup page (see p. 73). 27 Reference Maximum Speed Field To obtain the most accurate reading of average speed, keep in mind that due to the sensitivity of the GPS II+'s antenna, your maximum speed value may include the effects of rapid movement, such as swinging your arm while holding the unit. To reset the maximum speed field: 1. Highlight the `maximum speed' field, and press ENTER. Fig. 28a 2. Press ENTER to confirm the `RESET?' prompt (Fig.

28a). Altitude Field When the GPS II+ is acquiring satellites or navigating in the 2D mode, the last known altitude will be used to compute your position. If the altitude shown is off by several hundred feet, you can manually enter your altitude for greater accuracy. In cases where the GPS II+ has only 2D coverage, entering your approximate altitude will enable the receiver to determine a 3D fix. To enter an altitude: Fig. 28b 28 1. Highlight the `alt' field, and press ENTER (Fig. 28b). 2. Enter a value, and press ENTER.

Reference Marking a Position The GPS II+ allows you to mark, store, and use up to 500 positions as waypoints. Waypoints serve as electronic markers that let you keep track of starting points, destinations, navaids, etc. A waypoint position can be entered by taking an instant electronic fix, by manually entering coordinates (see p. 34), or by referencing a bearing and distance to a known position (see p. 35).

To mark your present position: 1. Press MARK. The mark Position Page will appear, showing the captured position and a default three-digit waypoint name (Fig. 29). 2.

To save a default name and symbol, press ENTER to confirm the `SAVE?' prompt. Fig. 29 29 Reference To enter a different waypoint name: 1. Highlight the waypoint name field, and press ENTER (Fig. 30a). 2. Make the appropriate changes, and press ENTER. 3. Highlight `SAVE?', and press ENTER. Note: To enter a different waypoint symbol or comment, see pp.

36-37. Fig. 30a To add this waypoint to a route: 1. Highlight the `add to route number' field (Fig.30b), and press ENTER. 2. Enter a route number, press ENTER to confirm the route number, and ENTER again to save the waypoint. Fig. 30b 30 Reference Waypoint Pages Fig 31 The GPS II+ has three waypoint pages that let you quickly manage up to 500 waypoints. These pages--nearest waypoints, waypoint list, and waypoint definition--can be accessed through the Menu Page.

To select a waypoint page: 1. Access the Menu Page, and highlight a waypoint page option (Fig. 31). 2. Press ENTER.

Use the function prompts on the left side of the waypoint definition page to review, rename, or delete stored waypoints and to create new waypoints manually. 31 Reference Nearest Waypoints Page The nearest waypoints page shows the nine nearest waypoints that are within 100 miles of your present position, with the bearing and distance noted for each waypoint (Fig. 32a). This page will also let you retrieve a waypoint definition page or GOTO a selected waypoint right from the list. To review the waypoint definition page of a selected waypoint: Fig.

32a 1. Highlight the desired waypoint. 2. Press ENTER. To return to the nearest waypoint page: 1. Highlight `DONE?' (Fig. 32b). 2. Press ENTER. To GOTO a highlighted list waypoint: 1.

Highlight the desired waypoint, and press GOTO. Fig. 32b 32 2. Press ENTER. Reference Waypoint List Page The waypoint list page provides a complete list of all waypoints currently stored in the GPS II+ and their respective waypoint symbols. The total number of empty and used waypoints is also indicated. From the waypoint list page, you can retrieve a waypoint definition page, delete all user-defined waypoints, delete waypoints by symbol, or review and perform a GOTO to a selected waypoint (see p. 32). To delete all user-defined waypoints: 1. Highlight `DELETE WPTS?' (Fig.

33a), and press ENTER. Fig. 33a An options page will appear, asking if you want to delete all user-defined waypoints or if you want to delete waypoints by symbol type. 1. Highlight either `ALL' or `SYMBOL' (Fig.

33b), and press ENTER. If you highlight `SYMBOL,' you'll be asked to select a symbol. 1. Select the symbol to be deleted, and press ENTER. 2.

Press ENTER to confirm the `DONE' prompt, highlight the `YES?' prompt, and press ENTER. Note: This feature is handy for deleting temporary waypoints created by the TrackBack function. Fig. 33b 33 Reference Waypoint Definition Page The waypoint definition page lets you create new waypoints manually or review and edit an existing waypoint's coordinates, symbols, and comments. It is also used to delete an individual waypoint from memory (see p. 38). To create a new waypoint manually, you'll need to know its position coordinates or its approximate distance and bearing from an existing waypoint. To create a waypoint by entering coordinates: 1. From the waypoint definition page, highlight `NEW?' (Fig. 34a), and press ENTER.

2. Enter a waypoint name, and press ENTER. 3. Press ENTER to select a waypoint symbol, make your selection, and press ENTER. 4. Highlight the `DONE?' prompt, and press ENTER to return to the waypoint page. 5. Highlight the `position' field, enter your position (Fig. 34b), and press ENTER. 6.

Press ENTER to confirm the `DONE' prompt. Fig. 34a Fig. 34b 34 Reference Reference Waypoints To create a new waypoint manually without knowing its position coordinates, you'll need to enter its bearing and distance from an existing waypoint or your present position. To create a new waypoint by referencing a stored waypoint: 1.

From the waypoint definition page, highlight `NEW?', and press ENTER. 2. Enter a waypoint name, and press ENTER. 3. Highlight the `reference' field (Fig. 35a), and press ENTER. 4. Enter a reference waypoint name (Fig. 35b) (or leave the field blank to use your present position), and press ENTER. 5. Enter the bearing and distance of your new waypoint from the reference waypoint. 6. Press ENTER to confirm the `DONE?' prompt. Fig. 35a Fig.

35b 35 Reference Waypoint Symbols The GPS II+ allows you to select one of 16 symbols for each waypoint for easy recognition on the map display.

From the symbol page, you may also select how the waypoint appears on the map. To select a waypoint symbol: 1. Highlight the symbol field (Fig. 36a), and press ENTER. Fig. 36a 2. Use the arrow keypad to select the desired symbol, and press ENTER. 3. The cursor will move to the display field, where you can select which waypoint information is displayed on the map.

4. Press ENTER, and select one of the following display options: `name with symbol,' `symbol only,' or `comment with symbol' (Fig. 36b). 5. Press ENTER to confirm your selection, and ENTER again to confirm the `done' prompt.

Fig. 36b 36 Reference Waypoint Comments Each waypoint stored in the GPS II+ has a user-defined 16-character comment field. The default comment is the UTC (or Greenwich mean time) date and time of the waypoint's creation. To change or add a comment: 1. Highlight the `comment' field.

2. Press ENTER (Fig. 37a). Fig. 37a Note: You can clear the `comment' field by pressing the left side of the rocker keypad. 3. Enter the desired comment (Fig. 37b). 4. Press ENTER.

Fig. 37b 37 Reference Renaming and Deleting Waypoints The rename and delete function fields are located along the right side of the waypoint definition page. To rename a stored waypoint: 1. Highlight `RENAME?' (Fig. 38a), and press ENTER. 2. Enter the new waypoint name (Fig. 38b), and press ENTER. 3. Press ENTER to confirm the `Yes?' prompt.

Fig. 38a To delete a stored waypoint: 1. Highlight `DELETE?', and press ENTER. 2. Highlight the `Yes' prompt, and press ENTER.

Note: To delete a waypoint that's part of a route, first remove the waypoint from the route (see p. 52), and then delete it. If you attempt to delete a waypoint that's part of a route, you'll be given a "Route Waypoint Can't be Deleted" message. Fig. 38b 38 Reference Scanning Waypoints As you manually enter a waypoint's name, the GPS II+'s waypoint scanning feature will automatically display the first numerical or alphabetical match of the character you have entered to that point.

This helps eliminate the need to always enter a waypoint's complete name. To scan waypoints from a waypoint field: 1. Highlight the waypoint name field, and press ENTER. 2. Press the left side of the keypad to clear the name field. 3. Scroll through the waypoints. Note: The GPS II+'s waypoint scanning feature will offer the first waypoint that matches the character or characters you have entered up to that point. If you have more than one waypoint that begins with the same letter or number, move to the next character position as needed. 4.

When you find the desired waypoint, press ENTER. The waypoint scanning feature will offer the first waypoint that matches the character or characters you have entered to that point. If you have more than one waypoint that begins with the same letter or number, move to the next character position as needed. 39 Reference Selecting a GOTO Destination The GPS II+ provides four ways to navigate to a destination: GOTO, MOB, TracBack, and route navigation. The most basic method of selecting a destination is the GOTO function, which lets you choose any stored waypoint as the destination and quickly sets a direct course from your present position. To activate the GOTO function: Fig. 40a 1. Press GOTO. 2. Select the waypoint you want to navigate to (Fig. 40a), and press ENTER. Once a GOTO waypoint has been activated, the Compass Page or Highway Page will provide steering guidance to the destination until either the GOTO is cancelled or the unit has resumed navigating the active route (see p 53). To cancel an active GOTO: 1. Press the GOTO key. 2. Highlight `CANCEL GOTO?' (Fig. 40b), and press ENTER. Fig. 40b 40 Reference Man Overboard Function The GPS II+'s man overboard function (MOB) lets you simultaneously mark and set a course to a position for quick response to passing positions. To activate the MOB mode: 1.

Press GOTO twice. The GOTO waypoint page will appear with `MOB' selected (Fig. 41a). 2 Press ENTER to begin MOB navigation (Fig. 41b). Fig. 41a The GPS II+ will now guide you to the MOB waypoint until the MOB GOTO is cancelled. If you want to save the MOB waypoint, be sure to rename it (Fig. 41c) because it will be overwritten the next time a MOB is activated. Fig.

41c Fig. 41b 41 Reference TracBack Navigation GARMIN's patented TracBack feature allows you to quickly retrace your path using the track log automatically stored in the receiver. This feature eliminates the need to mark waypoints along the way and manually create and activate a route back to where you began your trip. You may select one of three track recording options: Fig. 42a Off--no plot will be recorded. Fill--a track plot will be recorded until track memory is full. Searching--a track plot will be continuously recorded, wrapping through the available memory (replacing the oldest data with new data). To select a track log option: 1. Highlight the `record' field Fig. 42a), press ENTER, select an option, and press ENTER.

Fig. 42b 42 Once a TracBack route is activated, it will lead you back to the oldest track log point stored in memory, so it's usually a good idea to clear the existing track log at the start of each trip. To clear the track log and define a starting point for a TracBack route: 1. From the Map Page, press ENTER, highlight the `track setup' option, and press ENTER. 2.

Highlight `CLEAR LOG?' (Fig. 42b), press ENTER, highlight `Yes?', and press ENTER. Reference To activate a TracBack route: 1. Press GOTO, highlight `TRACBACK?' (Fig. 43a), and press ENTER.

Fig. 43b Fig. 43a Once the TracBack function has been activated, the GPS II+ will take the track log currently stored in memory and divide it into segments called legs (Fig. 43b). Up to 30 temporary waypoints will be created to mark the most significant features of the track log in order to duplicate your exact path as closely as possible. These points will be indicated by a `T001' number on the waypoint list, and by a "T" symbol on the Map Page (Fig. 43c). The active route page will appear, showing a route from your present position to the oldest track log point in memory. Steering guidance to each waypoint will be provided back to the starting point of your track log. Note: You may delete a TrackBack waypoint from a route, but only if the route is not active.

Fig. 43c 43 Reference Tips on Creating and Using the TracBack Feature To get the most out of the TracBack feature, remember the following tips: · Always clear your track log at the exact point that you want to go back to (trail head, truck, dock, etc.). · The `record' option on the track log setup page can be set to either the `wrap' or `fill' positions (see p. 42). · There must be at least two track log points stored in memory to create a TracBack route. · If there are not enough available waypoints in memory to create a TracBack route, you will be alerted with a `waypoint memory full' message, and the receiver will use any available waypoints to create a TracBack route with an emphasis on the track log closest to the destination (the oldest track log point in memory).

· If the ìmethod' option on the track log setup page is set to a time interval, the TracBack route may not follow your exact path. (Keeping the criteria set to automatic will always provide the most detailed TracBack route.) 44 Reference TracBack Tips (cont.

) · If the receiver is turned off or you lose satellite coverage during your trip, the TracBack route will simply draw a straight line between any point where coverage was lost and where it resumed. · If the changes in direction and distance of your track log are very complex, 30 waypoints may not be enough to accurately mark your exact path. The receiver will then assign the 30 waypoints to the most significant points of your track, and simplify segments with fewer changes in direction. · If you want to save a TracBack route, copy route 0 to an open storage route before activating another TracBack. Activating another TracBack or storage route will overwrite the existing TracBack route.

· Whenever a TracBack route is activated, the receiver will automatically erase any temporary waypoints that are not contained in routes 1-19. If there are temporary waypoints stored in routes 1-19, the receiver will create any new temporary waypoints using the first three-digit number available. (You can also quickly delete all temporary TracBack waypoints in memory by using the ìdelete by symbol' method described on p. 33.) 45 Reference Route Definition Page The last form of navigating to a destination with the GPS II+ is by creating a user-defined route.

@@@@@@@@@@@Routes can be copied, cleared, inverted, and activated (Fig. 47a) through the route definition page. To select the route definition page: 1. Highlight ìROUTES' from the Menu Page, and press ENTER. Fig. @@47b), with a 16character ìuser comment' field to the right. @@@@The total route distance is indicated below the waypoint list. Fig. @@Highlight the ìroute number' field, and press ENTER. 2.

Enter a route number, and press ENTER. (Only open routes will be available.) 3. Press ENTER to begin entry of a route comment, if desired (Fig. 48a). Fig. 48a 4. Enter your comment, and press the ENTER key. 5. Enter the first waypoint of your route, and press ENTER.
@@48b). Fig. @@@@The line between these two is called the ìactive leg'. @@@@@@@@@@@To activate a route: 1. @@2.
Enter the route number to be activated, and press ENTER. 3. Highlight ìACT?' (Fig. 49a), and press ENTER. Fig.
49a To activate a route in inverted order: 1. Follow the steps above, but select ìINV?' (Fig. 49b), and press ENTER. Fig. @@50a). @@The active route page will also allow you to change the ìete' field to display desired track (DTK) or estimated time of arrival (ETA) for each leg. You can also clear or invert the active route. To display DTK or ETA for each leg: 1. Highlight ìETE', and press ENTER (Fig. 50b).

2. Select ìDTK' or ìETA', and press ENTER. Fig. 50a The active route page also allows you to clear (stop navigating) or invert the active route without using the route definition page. To invert a route from the active route page: Fig. 50b 50 1. Highlight ìINV?', and press ENTER. To clear the active route and stop route navigation: 1. Select ìCLR?', and press ENTER. Reference Copying and Clearing Routes The route definition page is also used to copy a route to another route number.

This feature is useful when you make changes to the active (or TracBack) route and want to save the route in its modified form for future use. To copy a route: 1. Highlight the ìroute number' field, and press ENTER (Fig. 51a). 2.
Enter the route number to be copied, and press ENTER. 3. Highlight the ìcopy to' field, and press ENTER. 4. Scroll through the available routes and select a destination route number.
(Only open routes will be available.) Press ENTER to copy the route. Fig. 51a To clear a route from memory: 1. Highlight the ìroute number' field, and press ENTER. 2. Enter the route number, and press ENTER. 3. Select ìCLR?' (Fig. 51b), and press ENTER.

4. Highlight ìYes?', and press ENTER. Fig. 51b 51 Reference Editing Routes Once a route has been created and stored, it can be edited at any time. To edit a route from the active route page or the route definition page: 1. Select the waypoint you want to edit, and press ENTER (Fig. 52a). Fig. 52a An on-screen menu of editing choices will appear, with options for reviewing, inserting, deleting, or changing the waypoint field highlighted (Fig. 52b).
This field contains the following options: · Review?-- reviews the waypoint's definition page · Insert?-- adds a new waypoint that precedes the selected waypoint · Remove?-- deletes a selected waypoint · Change?-- replaces the selected waypoint with a new waypoint You may delete a waypoint from a route, but only if the route is not active. If you add, delete, or change the first or last waypoint of a route, the default comment (first and last waypoint) will automatically be updated after your changes. Note: Editing the original storage route will not affect route 0. If you want to save an edited version of route 0, save it to an open storage route. Fig.
52b 52 Reference On-Route GOTOs At the beginning of this section, we mentioned that the GPS II+ will automatically select the route leg closest to your position as the active leg. This will give you steering guidance to the desired track of the active leg. Note that the first waypoint selected as the destination waypoint will be of the route leg closest to your present position. This may mean you're not navigating to the first waypoint in the active route--you may be navigating to the last. If you prefer to navigate a route out of sequence, you can perform an ìon-route GOTO' from the active route page.
To perform an ìon-route GOTO' from the active route page: 1. Highlight the desired route waypoint, and press GOTO. 2. Once the GOTO waypoint page appears with the waypoint highlighted (Fig. 53a), press ENTER. Fig. 53a Note that after you reach the on-route GOTO waypoint, the GPS II+ will automatically resume navigating the rest of the route in sequence using the page you were on before performing a GOTO (Fig. 53b). Fig. 53b 53 Reference Selecting a User-Defined Navigation Page Once you've selected a GOTO destination or activated a TracBack, MOB, or route, the GPS II+ will provide graphic steering guidance to the destination with one of two navigation pages: ·The Compass Page (default) provides a directional pointer to the destination, with a rotating compass display to show your direction of travel (Fig.

54a). The compass page provides better steering guidance for car travel, hiking, or biking, where straight-line navigation usually is not possible. ·The Highway Page provides a graphic highway that shows your movement relative to the desired course, with an emphasis on your crosstrack error (the distance and direction you are off course) (Fig.

54b). This page also features a course deviation indicator (CDI) (see p. 78). The Highway Page is well-suited for water or off-road recreation where straight-line navigation is possible. Both pages provide a digital display of the bearing and distance to the destination, and your current speed and track over the ground. You can switch to either Navigation Page at any time. To select either Navigation Page: 1.

Press ENTER from the existing Navigation Page, and ENTER again to change the page. Fig. 54a Fig. 54b 54 Reference Selecting a User-Defined Navigation Page (cont.) The `ETE' field, located in the middle of the bottom of both pages, is a user-selectable field that allows you to display a variety of navigation values for your trip.

To access the user-selectable field: 1. Highlight `ETE', and press ENTER. 2. Use the keypad to scroll through the possible options. The following data options are available from the Navigation Pages (see Appendix H): Estimated Time Enroute (ETE)-- the time left to your destination based on your present speed and track.

Estimated Time of Arrival (ETA)-- the time of day of your arrival at a destination, based on current ground speed and track. Course to Steer (CTS)-- the bearing which will give you the most efficient way to stay on course to your destination. Crosstrack Error (XTK)-- the distance you are off the desired course in either direction. This field will give you a digital representation of the CDI scale. Velocity Made Good (VMG)-- the speed you are traveling toward the destination. Turn (TRN)-- the amount of correction in degrees needed to travel directly to the destination. 55 Reference Using the Compass Page The GPS II+'s Compass Page (Fig. 56 and p. 57) provides graphic steering guidance to a destination waypoint. The middle of the page features a rotating `compass ring' that shows your course over ground while you're moving (track up), and a pointer arrow that indicates the direction of the destination relative to the direction you're moving.

The compass ring and pointer arrow work independently to show--at a glance--the direction of your movement and the direction to your destination. For instance, if the arrow points up, you are going directly to the waypoint. If the arrow points any direction other than up, turn toward the arrow until it points up--then continue in that direction. The bearing and distance to a waypoint are displayed at the top of the screen, and your current track and speed are shown below. This page provides better steering guidance than the Highway Page for travel at slower speeds and for travel with many directional changes. When you are one minute away from the destination (based on your current speed and track over the ground), the GPS II+ will alert you with a flashing on-screen message box. Fig. 56 56 Reference Bearing to Waypoint Destination Waypoint Distance to Waypoint Pointer to Waypoint Graphic Compass Ring Track Over Ground Estimated Time Enroute (User-Selectable Field) Speed Over Ground 57 Reference Using the Highway Page The GPS II+'s Highway Page (Fig. 58 and p. 59) also provides graphic steering guidance to a destination waypoint, with a greater emphasis on the straight-line desired course and the distance and direction you are off course.

As you head toward your destination, the middle of the screen provides visual guidance to your waypoint on a moving graphic "highway." Your present position is represented by the diamond in the center of the course deviation scale. The line down the middle of the highway represents your desired track. As you navigate toward a waypoint, the highway will actually move--indicating the direction you're off course--relative to the position diamond on the CDI scale. To stay on course, simply move toward the center of the highway.

If you do get off the desired course by more than 1/5th of the selected CDI range, the exact distance you are off course will be displayed where the CDI scale setting normally appears. If you get too far off course (the highway has disappeared), a message box will appear to indicate what course to steer to get back on course. (For information on how to set this scale, see p. 78.) As you approach a waypoint, a horizontal "finish line" will move toward the bottom of the highway.

When the finish line reaches the CDI scale, you've arrived at your destination. Fig. 58 58 Reference Bearing to Waypoint Destination Waypoint Distance to Waypoint CDI Scale Graphic Highway Track Over Ground Estimated Time Enroute (User-Selectable Field) Speed Over Ground 59 Reference Map Page The GPS II+ features a powerful real-time map (Fig. 60 and p. 61) that can do much more than just plot your course and route. The Map Page also provides you with a target cursor that will let you pan ahead to nearby waypoints, determine the distance and bearing to any map position, and mark new waypoints while you navigate. The GPS II+ also features dedicated zoom keys for instant zooming (see p. 62). The map portion of the page displays your present position as a diamond icon, with your track and/or route displayed as small points (electronic breadcrumb trail that "flashes" at a map scale of less than 5 miles.).

Nearby waypoints are represented with names, symbols, or comments. You may select which features are shown through the waypoint definition page (see pp. 64-65). The four corners of the Map Page are used to display various navigation data, including the bearing and distance to a destination waypoint and your current track and speed over the ground. The two fields at the top corners of the map show your bearing and distance to one of three selectable destinations: an active destination waypoint; a highlighted on-screen waypoint; or the panning target crosshair. If you are not navigating to a waypoint or using the panning function, the top data fields will not be displayed. Your current track and speed are shown at the bottom corners of the display. Fig. 60 60 Reference Bearing to Waypoint Route Line Distance to Waypoint Track Log Track Over Ground Present Position Panning Cursor Speed Over Ground 61 Reference Zooming and Panning There are three main functions you can perform from the Map Page: zooming, panning, and pointing. The map has 12 map scales (from 0.

2 to 320 miles, or 0.5 to 600 km) which are selected by pressing the IN and OUT zoom keys. These ranges are measured vertically, from the bottom of the screen to the top. To use the zoom keys: Fig. 62a 1.

From the Map Page, press either IN or OUT (Fig. 62a). 2. To see the current map scale, press and hold either button down. A pop-up window will display the current scale (Fig.

62b). The second function on the Map Page is the pan function, which allows you to move the map with the keypad in order to view areas outside the current map. To activate the pan function: 1. Use the keypad to move the map in any direction, including diagonally.

Fig. 62b 62 Reference Zooming and Panning (cont.) As you begin to move the map, a crosshair appears (Fig. 63a). This crosshair will serve as a target marker for the map. The distance and bearing to a destination will be replaced by the distance and bearing from your present position to the target crosshair.

Fig. 63c Fig. 63a Fig. 63b When you pan around the map, you'll notice the target crosshair will "snap" to onscreen waypoints and highlight the waypoint name (Fig. 63b). Once a waypoint name is highlighted, you can either review its waypoint definition page (Fig. 63c) or waypoint display options, or execute a GOTO function right from the Map Page (Fig. 63d). Fig. 63d 63 Reference To review the waypoint definition page for a highlighted waypoint: 1. Press ENTER while the waypoint is highlighted. Fig. 64a Fig. 64c Fig. 64b 64 From the waypoint definition page, you can also define how each individual waypoint is displayed on the map.

The GPS II+ displays waypoints as a name with a corresponding symbol (e.g., "nearest fuel" and a gas pump symbol) (Fig. 64a), a symbol only (e.g. , a fish symbol) (Fig. 64b), or a 16-character comment and corresponding symbol (e.g., "great view" and the camp site symbol) (Fig. 64c). The waypoint name has a six character limit while the `comment' field has a 16-character limit, and there are 16 individual waypoint symbols available. Reference To select a waypoint display option: 1. Highlight the symbol field (to the right of the name field), and press ENTER. 2. Move the cursor to the `display' field (Fig.

65a), and press ENTER. 3. Select a display option, and press ENTER to select one of the following display options: `name with symbol,' `symbol only,' (Fig. 65b) or `comment with symbol.' 4. Press ENTER to confirm the `DONE?' prompt. 5. Press ENTER again (on the waypoint definition page) to return to the Map Page. Fig. 65a The last function you can perform with a waypoint highlighted on the Map Page is to perform a GOTO directly to the waypoint. To GOTO a waypoint highlighted on the Map Page: 1. Press GOTO. 2. Press ENTER to confirm the GOTO waypoint page. Fig.

65b 65 Reference Using the Cursor to Mark and GOTO Waypoints During panning, the crosshair represents a target position right on the Map Page, with the range and bearing to the target displayed at the top corners of the screen. You can also use the target crosshair to mark a new waypoint position or as a GOTO destination right from the map field. To mark the target crosshair position as a new waypoint: Fig. 66a 1. Press MARK (Fig.

66a). 2. Enter a name and/or route number, and press ENTER. You can also use the target crosshair as an instant GOTO destination. This feature is similar to the MOB mode, and will allow you to mark and instantly set a course for a new waypoint called `MAP'. To GOTO the target crosshair: 1. Press GOTO, and press ENTER (Fig. 66b). Fig. 66b 66 To save the MAP waypoint, be sure to rename it because it will be overwritten the next time a map GOTO is executed.

To stop the panning function: 1. Press QUIT. Reference Accessing the Map Setup and Track Setup Windows You can access two additional pages--the map setup page and the track setup page--by pressing ENTER while on the Map Page (Fig. 65a). The map setup and track setup window will appear, ready for you to select one. To select map setup or track setup: 1. Highlight either field, and press ENTER. Fig. 67a Map Setup Page and Orientation The map setup page lets you select Map Page and satellite sky view (see p. 21) orientation, as well as specify what items are displayed.

The Map and Satellite Pages may be oriented to `NORTH UP,' `TRACK UP' (the direction of current travel), or `DTK UP' (desired track up, or the direction of travel to stay on course). The default setting is track up. To change the map orientation: 1. Highlight the `map' field, and press ENTER (Fig. 67b).

2. Select the desired orientation, and press ENTER. Fig. 67b 67 Note: Selecting the `DTK UP' option will set the satellite sky view to track up orientation. Reference The rest of the map setup page lets you specify what items are displayed or plotted on the Map Page by selecting `YES' or `NO' in the appropriate field.

· 'Rings'-- displays the three present position range rings on the map (Fig 68). · 'Route'-- plots the straight leg lines between waypoints of an active route and displays all route waypoint names. Fig. 68 On-screen range rings help you estimate distances relative to your present position. The value of each ring is determined by the current zoom scale. The distance value of each ring is equal to 1/5 of the current zoom range, with the interval of each ring noted below the first range ring. 68 · 'Nearest'-- shows the nine nearest waypoints to your present position (not to the target cursor) on the map. · 'Names'-- displays the waypoint name for the nine nearest waypoints. · 'Track Log'-- displays and plots track points on the map. To turn a map item on or off: 1.

Highlight `YES' or `NO' for the specific map item, and press ENTER. Reference Track Setup Page The track setup page lets you manage the GPS II+'s track log data. From this page, you can select whether to record a track log and define how it is recorded. To turn the track log on or off: 1. Highlight the `record' field, and press ENTER. 2. Select `YES' or `NO', and press ENTER. (Note: Turning the track recording off will disable the TracBack feature.) Fig. 69a Track Method The stored track method determines how often positions are stored in the track log.

The default setting is automatic, which will store a track based on resolution. This setting gives you the most efficient use of track memory and provides the most accurate TracBack route. To change the method to record points based on a specific time interval: 1. Highlight the `method' field, and press ENTER. 2. Select `TIME INTERVAL' (Fig. 69a), and press ENTER twice (Fig. 69b). 3. Enter a value in hours, minutes, and seconds, and press ENTER.

Fig. 69b 69 Reference Track Log Display The track log option sets the number of points the unit will attempt to display on the Map Page. The default setting of 250 points provides good resolution with minimal screen clutter. The maximum setting is 1024 points. Once you've reached the maximum number of track points, the older points will be lost as new points are added. Note that adjusting the track points displayed will not affect whether the receiver records a track log or the ability to create a TracBack route. Managing and Clearing the Track Log The rest of the track setup window displays the percentage of available memory currently used to store track log data, as well as function fields to clear the track log memory and activate the TracBack feature. To clear the track log: 1.