User Manual
SporTrak Series of GPS Mapping Receivers

This manual covers both the SporTrak™ Map and the SporTrak™ Pro GPS receivers. All of the functions described in this manual apply to both receivers.

The SporTrak Map has a 2MB basemap with an additional 4MB for data downloaded from MapSend™ products. The SporTrak Pro has a 9MB basemap and 23MB for data downloaded from MapSend products.

MAGELLAN

WARNINGS

FOR SAFETY REASONS, THE DRIVER SHOULD NOT USE THIS DEVICE IN A VEHICLE WHILE IN MOTION TO ASSIST THE DRIVER TO NAVIGATE.
Please do not try and change any settings on the SporTrak while driving. Come to a complete stop or have your passenger make any changes. Taking your eyes off the road is dangerous and can result in an accident in which you or others could be injured.

USE GOOD JUDGEMENT
This product is an excellent navigation aid, but does not replace the need for careful orienteering and good judgement. Never rely solely on one device for navigating.

USE CARE
The Global Positioning System (GPS) is operated by the U.S. Government, which is solely responsible for the accuracy and maintenance of GPS.

The accuracy of position fixes can be affected by the periodic adjustments to GPS satellites made by the U.S. Government and is subject to change in accordance with the Department of Defense civil GPS user policy and the Federal Radionavigation Plan. Accuracy can also be affected by poor satellite geometry.

USE PROPER ACCESSORIES
Use only Magellan cables and antennas; the use of non-Magellan cables and antennas may severely degrade performance or damage the receiver, and will void the warranty.

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THALES NAVIGATION
LIMITED WARRANTY

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- INSTALLATION

- BATTERIES

- FINISHES

- DEFECTS RESULTING FROM INSTALLATION

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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If you purchased this product outside of the United States, this limited warranty is governed by the laws of the State of California and shall benefit Thales Navigation, its successors and assigns.

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For further information concerning this limited warranty, please call or write:

Thales Navigation, 960 Overland Court, San Dimas, California, U.S.A. 91773

Phone: (909) 394-5000
Fax: (909) 394-7050

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Introduction

Welcome and congratulations on your purchase of one of the Magellan SporTrak GPS mapping receivers. The SporTrak has all the features that a sailor, fisherman, hiker, hunter, or any person involved with outdoor recreational activities has come to expect from a Magellan GPS receiver. In addition to these features, the SporTrak offers the ability to display your location on detailed city maps providing you with a complete navigation tool that will last you for years to come.

Magellan has been a leader in the hand-held GPS market since introducing the world's first commercial, hand-held GPS receiver in 1989. Since that time Magellan has continued to equip the outdoorsman and consumer markets with navigational receivers, all the way from the first GPS receiver for under $100 to automotive receivers with turn-by-turn routing capabilities.

Before you begin, make sure that your package includes all of the items listed on the packing list. Magellan is a trademark name for Thales Navigation.

About This User Manual

This User Manual is divided into six chapters; *Introduction*, *Setting Up the SporTrak, Basic Operation, Reference Guide, Frequently Asked Questions,* and *Appendix*. Each of these chapters will be explained briefly so you can tell which ones are right for you. A glossary and index are provided after the Appendix as well.

Setting Up the SporTrak: This chapter will show you how to prepare the SporTrak for use. Instructions will include how to install the batteries, how to select the languages and how to initialize the SporTrak.

Basic Operation: This chapter provides you with step-by-step instructions for using the basic functions of the SporTrak. This chapter will explain getting a position fix, viewing the Map screen, saving a waypoint and using a GOTO. Knowing these four basic steps will enable you to use the SporTrak for most things you will want to do.

Reference Guide: Here you will find step-by-step instructions for all of the features found in the SporTrak. This chapter is set up in a way that you can quickly and easily find the feature you are looking for.

Frequently Asked Questions: This chapter is aimed at answering some of the more basic questions that you may have about your SporTrak, the global positioning system (GPS) and using the SporTrak to its fullest. Experienced GPS users will probably not find any new information in this chapter but new GPS users may find many of their questions answered here.

Appendix: Sections containing information about connecting your SporTrak to external devices, accessories, troubleshooting and specifications can be found in the Appendix.

Glossary: A glossary is provided explaining some of the terms and abbreviations found in the SporTrak and this manual that may not be familiar to all users.

It's time to begin using your SporTrak. Don't be overwhelmed with the size of the manual as we have tried to give enough information for the beginning user as well as provide the experienced users with the specifications and features that they are looking for.

The most important thing to us is to be sure that you are completely satisfied with your SporTrak and the accompanying documentation. If you have any ideas, suggestions or even a complaint, please pass them along to us through our web site (www.magellangps.com) or by mail.

Setting Up the SporTrak

Setting up the SporTrak is a simple three-step process: installing the batteries, selecting the language to be used and initializing the SporTrak.

Installing the Batteries

The Magellan SporTrak uses two AA batteries that are installed from the back through the battery cover. You can expect to get up to 15 hours of usage on two AA batteries with the backlight turned off.

To remove the battery compartment, loosen the retaining screw at the bottom of the battery compartment. The battery compartment will come free from the SporTrak and you can slide it out.

Install two AA batteries observing the correct polarity. Slide the battery compartment back into the SporTrak and tighten the retaining screw. Do not overtighten the retaining screw.

How much time do I have to replace the batteries? *Any waypoints or routes you have created are stored in permanent memory with the batteries removed. Present position and time data is not stored in permanent memory but will be held in memory for at least 12 hours without batteries installed.*

Always turn the SporTrak off before removing the batteries or turning off external power. Failure to do so can cause loss or corruption of data.

Selecting Language

The first time you use your SporTrak (or if memory has been completely erased) you will be asked to select the language that you want to use. Use the UP/DOWN arrows on the keypad to highlight the language you desire. With the language highlighted, press the ENTER button. You can select English, French, German, Spanish, Italian, Portuguese, Finnish, Dutch or Swedish.

You can change the language at any time by accessing the Languages option of the Setup Menu. (See *Changing Languages* in the Reference Section of the User Manual.)

Initialization for First Time Use

The final step in setting up the SporTrak is to initialize the receiver for first-time use. This will help your SporTrak begin computing your position in the fastest manner possible.

The reason for initialization is to speed up the process for computing the first position fix when the SporTrak has no last position computed in memory (i.e., when the SporTrak is brand new or memory has been cleared). This gives the SporTrak an approximate indication of where it is located so it can use its satellite almanac (stored in permanent memory) to estimate what satellites are overhead and which ones it should be looking for.

Follow these instructions to initialize the SporTrak.

Turning the SporTrak On

Press ☀ [**PWR**]

The SporTrak turns on and displays the start-up screen and a warning screen.

Press ⊕ [**ENTER**]. (You have 10 seconds to press ⊕ [**ENTER**]
or the SporTrak will shut off.)

> The SporTrak displays a
> message box indicating that
> the receiver needs to be
> initialized.

```
ATTENTION!

UNIT IS NOT
INITIALIZED


PRESS
ENTER TO
INITIALIZE
```

Press ⊕ [**ENTER**].

Enter Your Approximate Position (Initialize)

Use the Up/Down arrows on the keypad to
highlight your general region.

Press ⊕ [**ENTER**].

```
Region



Enter Coord
USA
Americas
Europe
Asia East
Asia West
```

Use the Up/Down arrows on the keypad to
highlight your area.

Press ⊕ [**ENTER**].

```
Area



Alabama
Alaska
Arizona
Arkansas
California
Colorado
```

> The cursor appears in the time field, waiting
> for you to input your local time. Set your
> local time using the arrow keys. Be sure that
> you set the AM/PM indicator.
>
> Note: After the SporTrak starts to pick up
> signals from any satellite, it will
> automatically update the time using the
> satellite's atomic clock.

```
Time

37°00.00N
119°00.00W

0ft

09:00AM
05MAR00

Done
```
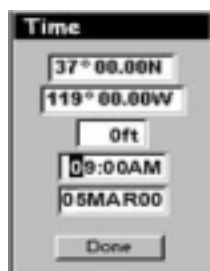
To use the arrow keys to edit a field, follow the simple diagram below.

Editing

 moves the cursor block left or right.

00000	Pressing right arrow results in:	0**0**000
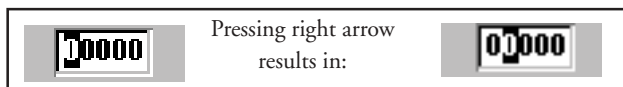
 increments the value up or down.

00000	Pressing up arrow results in:	**1**0000
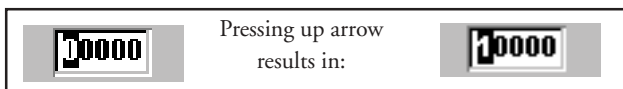
When the time is correct, press [**ENTER**].

> The last piece of information needed is the date. Using the arrow keys, enter the present date.

Press [**ENTER**].

> All the information that the SporTrak needs to speed up the process of computing its first fix has been entered and the Done button is highlighted.

To complete the initialization process, press [**ENTER**].
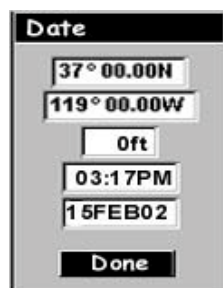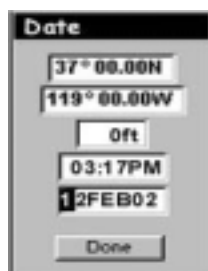
The Satellite Status screen is displayed and the SporTrak begins acquiring the data from the satellites. You can begin using the SporTrak beginning with the Basic Operation described in the next chapter or you can turn the SporTrak off. If you turn the SporTrak off, all of the information you just entered will be saved.

To turn the SporTrak off, press [**PWR**].
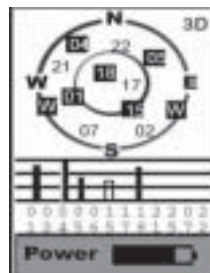
Basic Operation

For many of you this will be your first introduction into using a GPS receiver as a navigational tool. With all of the features and functions provided with the SporTrak, it may seem a bit intimidating at first. Don't worry. There are only a few things you need to know to use the SporTrak. They will be discussed here in detail. Other features and functions can be found in the Reference Section of the User Manual.

SporTrak GPS Receiver

OUT - Zooms out the display of the Map screen. (Press once to zoom one level, press and hold to quickly move through the zoom levels.)

NAV - Accesses the various navigation screens.

MENU - Accesses menus for displayed screens. Also provides access to waypoint, route and setup functions.

GOTO (dual function key) - GOTO is used to create a direct route to any waypoint stored in memory. This key is also used to MARK a position.

IN - Zooms in the display of the Map screen. (Press once to zoom one level, press and hold to quickly move through the zoom levels.)

ENTER - Confirms data entries or menu selections.

ESC - Cancels the operation of the last button pressed. Also scrolls through the NAV screens in reverse order.

PWR - Turns the SporTrak on/off. Also used to turn the display backlight on/off.

Turning Power On/Off

Turning the SporTrak On
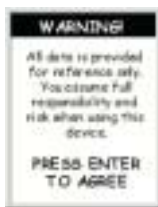
The last navigation screen you were viewing will be displayed. If the last navigation screen view was the Map screen, the last zoom scale setting will be used.

Turning the SporTrak Off
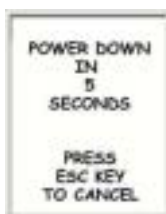
Pressing the POWER button again will turn off the SporTrack immediately.

Pressing ESC will cancel the power down sequence.

Turning the Backlight On/Off

The display backlight can be set to one of three levels (low, high or off).

The backlight causes severe drain on the batteries in the SporTrak. To prevent accidently turning the backlight on and leaving it on, the SporTrak will turn the backlight off when there has been no button presses for 4 minutes. Pressing any button will turn the backlight back on in this instance. You can change the time delay for the backlight in Setup.

Adjusting the Contrast

from any
screen

Use up/down
arrows to
highlight
Contrast

Menu
Database
Routes
Setup
Sun/Moon
Fish/Hunt
Contrast
Alarms/Msg

The menu display may
differ slightly
depending upon which
screen it was
accessed from.

Contrast

Use left/right
arrows to
adjust the
contrast.

Getting a Position Fix

Because the SporTrak attains information it needs
from satellites orbiting the earth, the antenna needs to
have a relatively unobstructed view of the sky. This allows the
SporTrak to choose from all satellites currently available.
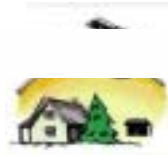
If the view of the sky is poor due to large cliffs or buildings, heavy
foliage or other obstructions, the satellite signals can be blocked and
the receiver may take longer to compute a position fix.

You can observe the signal strength and the satellites being used on the
Satellite Status screen (described in the next
section).

Holding the SporTrak. The receiver is
designed to fit comfortably in your hand.
Hold the SporTrak in the palm of your hand
with the antenna pointing towards the sky.

Navigational Screens

The SporTrak has seven navigation screens: Map screen, Compass screen,
Large Data screen, two Position screens, Road screen, and Sat Status screen.
They will be described briefly here. More detailed information on the
different screens can be found in the Reference chapter of the User Manual.

Map Screen   The Map screen has two modes, position or cursor. In the position mode, your present position is indicated by the large arrow icon in the center of the display. If you are moving, the arrow will point in the direction that you are heading. At the bottom of the screen is the scale for the map displayed and two data fields that can be customized, or turned off, depending upon your needs.
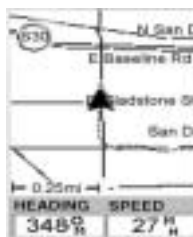
In the Cursor Mode, you are provided with a cursor that can be moved on the map. At the bottom of the display is the information for the position of the cursor relative to your present position. Also any points of interest that the cursor is over will be shown.

To access the Cursor Mode, press any arrow on the keypad. A crosshair appears that can be moved with the arrow keys.

To return to the Position Mode, press ⊗ [**ESC**]. The cursor will disappear and the present position icon will appear centered on the map.
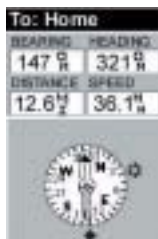
Compass Screen.   This is a handy screen to have at your fingertips while you are navigating. It is totally customizable to display the information that is useful to you. The lower portion of the Compass screen not only displays your heading in a graphical manner, but also displays the relationship of the sun, moon and your destination (if navigating on a route) to your heading.

Large Data Screen.   The Large Data screen is similar to the Compass screen but here the compass has been removed to allow for large display of the navigation data. Ideal for when you have your SporTrak mounted on the dashboard of a boat using the optional swivel mounting bracket. Even from a distance the information can be read with ease.
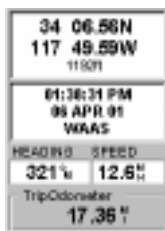
Position Screens. The Position screens 1 and 2 display your present position using the coordinate systems that you have selected in Setup. This screen shows all of the basic position, time and satellite information. In addition, current navigation information is shown in the bottom half of the screen.

Road Screen. The Road screen presents your route as if you were travelling on a road. When you need to make a turn, the road will graphically display the turn and the direction. Waypoint and destination icons will be displayed relative to your position as they come into view. Above the road is a compass that displays your heading and above that are four customizable data fields.
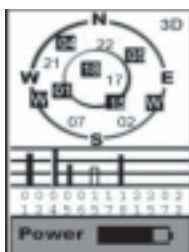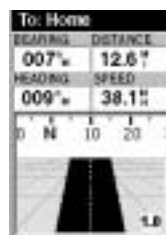
Satellite Status Screen. The Sat Status screen provides you with a graphical display of the satellites in view and which ones are being used to compute the navigation data. The bar graph shows you the relative signal strength being received for each satellite. At the bottom of the display is an indication of the battery life remaining. When you are using external power, it will be indicated here as well.

Accessing the NAV Screens

From any screen other than a navigation screen, pressing 🌐 [**NAV**] returns you to the last navigation screen viewed. Note that if you are inputting data, pressing 🌐 [**NAV**] will return you to the last navigation screen but your inputs will not be saved.

Saving a Waypoint

A waypoint is a point on a map that you can name and save in the SporTrak. They are primarily used for creating routes. Whether the route is a simple GOTO or a more complex multileg route, it needs stored waypoints to use as its starting and destination point.

Saving a Waypoint with a Receiver-Generated Name

From any screen, press [image] [**MENU**]. Use the arrows to highlight "Mark" and press [image] [**ENTER**].

The "Save" button is highlighted and you can press [image] [**ENTER**] to save the waypoint using the default name and icon.

You can later go back and edit any of the waypoint information through the Database Menu or you can change the information now following the guidelines below. (See *Waypoints* in the Reference chapter of the User Manual.)

Saving a Waypoint with a User-Input Icon and Name

From any screen, press [image] [**MENU**]. Use the arrows to highlight "Mark" and press [image] [**ENTER**].. Use the UP/DOWN arrows and notice that the highlight moves from field to field and then back to "Save."

Highlight the Icon field using the UP/DOWN arrows. Press [image] [**ENTER**].

The Icon Select window is displayed. Use the arrow keypad to move from one icon to another with the name of the icon displayed at the top.

As a reference tool, all of the icons and their names are listed in the Reference Chapter of the User Manual. When you have highlighted the icon you want to use, press [**ENTER**].

The cursor is now highlighting the Waypoint Name field. With the Name field highlighted, press [**ENTER**]. The input keyboard is displayed. The very top of the keyboard window shows you what field you are changing, in this case the Name field.

You can now use the arrow keypad to select the character you wish to enter. With the character highlighted, press [**ENTER**] and the character is appended to the name you are entering and displayed in the field above the keys. (Note: waypoint names can be up to 8 characters in length.)

Highlighting "Back" and pressing [**ENTER**] erases the last character you entered.

Highlighting "Clear" and pressing [**ENTER**] clears the entire name.

Highlighting the space bar and pressing [**ENTER**] adds a space.

Highlighting "Shift" and pressing [**ENTER**] displays the lower case letters and some additional punctuation marks.

When you have the name the way you want it, highlight "OK" and press [**ENTER**]. You are returned to the Mark screen with the new name displayed.

SHORTCUT: There is a shortcut to accessing the Mark screen that you may find easier to use than accessing Mark from the Main Menu. If you press the ![GOTO icon] [**GOTO**] key and hold it down for 2-3 seconds, the Mark Waypoint Screen is displayed.

Entering a Message

As many as 200 waypoints can have a message assigned to it. This comes in handy in further identifying the waypoint. If this was a waypoint for a friend's house or business, you could add a phone number or any other information that you find useful.

Is there a limit to the number of waypoints I can store in the SporTrak? *Yes, the SporTrak will store up to 500 user waypoints in memory. If you should ever get that many and need to input more, you will have to delete ones that you no longer need to make room.*

Using GOTO Routes

A GOTO route is simply a route with a start point and a single destination point: I am here and I want to *go to* there. All that is required to create a GOTO route is having the destination waypoint saved in memory. This waypoint can be one that you have saved earlier (which is stored in your User Waypoint List) or any of the landmarks that come with the SporTrak in its built-in database.

Creating a GOTO Route

Press ![GOTO icon] GOTO. The first thing that has to be done is to select the destination waypoint. This is done by accessing the waypoint database. The first screen is used to select the category of the database that the waypoint is in and how it will be found, alphabetically or nearest to your position, a city or the cursor.

Selecting a Destination Waypoint from Database using "Near Position"

Use the UP/DOWN arrows to highlight the category that your destination waypoint is in. Use the LEFT/RIGHT arrows to select how the waypoints are displayed, Alphabetical, Near Position, Near City or Near Cursor. In this case, you will be using "Near Position".

The example shown here is a sample of a City Waypoint List. This is a sample of a Nearest City Waypoint list for Magellan. Your screen will look different.

Use the UP/DOWN arrows to highlight your choice of waypoint to be your destination and press [**ENTER**].

The GOTO route is now active and you are returned to the last viewed navigation screen.

Selecting a Destination Waypoint from the Database using "Alphabetical"

Highlight any category other than User, and press the LEFT/RIGHT arrows to select a Find By of "Alphabetical". Press [**ENTER**]. (In this example, Cities was selected and this is how the screen appears.)

Using the arrow keys to navigate the displayed keyboard, begin typing in the name of the waypoint (destination) you are looking for.

For example, suppose your destination was to be Los Angeles. Use the keypad to highlight the letter "L" and press [**ENTER**]. Notice how the name is changed to the first city stored in the SporTrak's memory that begins with the letter "L" and that the cursor has moved to the next letter in the city name. (You can move the cursor back if you made a mistake by highlighting the "<-" button on the keyboard and press [**ENTER**].)

Since we are looking for Los Angeles, we need to highlight the "O" next and press [**ENTER**]. Then the "S" and press [**ENTER**].

To add a space, highlight the "space bar" and press [**ENTER**]. (Also, you can use the "->" button to move the cursor to the right if you want to skip the letter the cursor is indicating.)

You don't need to spell out the entire word. The attempt here is to get close to the name so you won't need to scroll very far during the next step. As a guide, entering the first five letters should be sufficient. When you are satisfied with what you have entered, highlight "OK" and press

[**ENTER**].

The list of all the waypoints for the category you selected, in this case cities, is displayed with the waypoint that was previously selected at the top of the list. Now just use the Up/Down arrows to highlight the waypoint you are looking for and press ⊕ [**ENTER**].

For this example, you would highlight Los Angeles and press ⊕ [**ENTER**]. The Map screen is displayed and the SporTrak will begin computing all of the necessary information needed to get you to your destination.

Navigating on a GOTO Route

The SporTrak has the ability to provide you with the tools you'll need to navigate to your destination. You have the choice of three customizable screens that display the information that you need in the layout that you desire. Hikers may find the compass screen perfect for them while boaters may prefer the Large Data or Map screen. For you, the Map screen may have all the information you'll ever require.

Press ⊕ [**NAV**] until the navigation screen you want is displayed.

If you selected the Map screen, you will see your position icon in the center of the screen with a line drawn for you on the map, graphically displaying the GOTO route.

Note that this route is line of sight (LOS) or "as the crow flies." The SporTrak does not compute the route using streets and highways providing a turn-by-turn routing. You'll find very quickly that you can easily use the roads and highways displayed on the Map screen and compare them to the displayed route and get to your destination simply.

GOTO routes are NOT saved in memory when the SporTrak is turned off. If you are navigating on a GOTO route and you need to turn the SporTrak off, you will need to restart the GOTO. Routes, however, are stored in memory. If you need to make a GOTO but expect to turn the SporTrak off before arriving, you might consider making a 1-leg route using the route menu.

Summary

This concludes the basic operation of the Magellan SporTrak, but there is so much more. More detailed information can be found in the Reference Section of the User Manual.

If this is your first time using a GPS receiver, you should take some time now to get comfortable with the NAV screens and begin saving some waypoints at different locations. An ideal way to get used to using the Magellan SporTrak is to go outside your house and obtain a position fix. (An easy way to see that you are computing a position fix is to view the Sat Status screen. When you see "3D" in the upper right corner, you are computing fixes.) Now view the Map screen. Chances are you will see some familiar streets being displayed.

Now that the SporTrak has told you where you are, save this location into memory by pressing ⊙ MENU, selecting Mark from the list and pressing ⊙ ENTER. Now would be a good time to practice using the keypad to enter a new name for this waypoint. "Home" would be a good choice. When you have finished inputting a name and you've highlighted DONE and pressed ⊙ ENTER, you will be back at the Map screen. Notice there is now an icon displayed for the waypoint you just created.

Next, go to the store, a friend's house or any location away from where you are now. Repeat the process of "Marking" this position. (Be sure you are computing fixes before saving the position.) Now you should have two distinct waypoints saved in your SporTrak.

Using the simple instructions provided here, press ⊙ GOTO, highlight "User" and press ⊙ ENTER. Now use the up/down arrows to highlight the "Home" waypoint (if you called it that) and press ⊙ ENTER. The Magellan SporTrak will now begin computing all of the information you need to return to your home. As you are travelling, notice the different NAV screens and witness the data changing as you are moving. (Don't view the SporTrak screen if you are driving, let the passenger do that.)

Everything else the SporTrak can do for you is based on the simple exercise you just performed and when you are comfortable doing this, everything else will be a simple building block on what you already know.

Reference

Power / Backlight / Contrast

Turn the SporTrak On — Applies power to the SporTrak and displays last NAV screen viewed. During power-up the first screen shows the software and map database versions currently loaded in the SporTrak. The second screen gives a warning that must be read. After reading the warning press ENTER to proceed. (If you do not press ENTER, the SporTrak will shut off after 10 seconds.)

You have 10 seconds to press ENTER accepting the warning or the SporTrak will shut off.

Turn the SporTrak Off — Shuts down the SporTrak.

Press ESC to abort before 5 seconds has elapsed.

During the 5 second countdown, pressing the POWER key again will shut the SporTrak off immediately.

Using the Display Backlight — Illuminates the display for easier viewing in dark surroundings. Use only as needed as the backlight causes a large drain on the batteries. An automatic timer will turn the backlight off when a button has not been pressed for a selected duration. (See "Setup" to change the settings for the automaic timer).

Press and hold for 2 seconds.

Adjusting the Display Contrast — Sets the contrast of the display for easy viewing in most lighting conditions.

from any screen

Use up/down arrows to highlight Contrast

The menu display may differ slightly depending upon which screen it was accessed from.

Use left/right arrows to adjust the contrast.
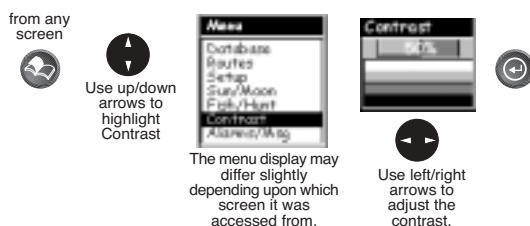
Navigational Screens

Selecting NAV Screens — The NAV button provides a means of accessing the navigation screens. (Note: the sequence displayed is when all eight navigation screens are turned on. Screens turned off in Setup will not be displayed.)

Navigation Screen Sequence

Map Screen
Compass Screen
Large Data Screen
Position Screen
Road Screen
Sat Status Screen
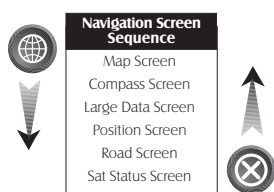
Returning to Last Viewed NAV Screen — Pressing the NAV button returns the SporTrak to the last NAV Screen viewed.

(Note: if the NAV button is pressed from a screen where data is being input, the data will not be saved.)

Map Screen

The Map screen is the very heart of the SporTrak. The Map screen has two modes: Position and Cursor.

In the Position Mode, the map is centered around your present position with an arrow cursor indicating your position and points in the direction you are heading. Two customizable data fields are presented at the bottom of the display. If you require to see more of the map you can also turn off these data fields. Information as to how to customize this screen follows this brief description of the Map screen.

Present Position Icon

Track History

Map Scale Indicator

Data Fields

Present Position Icon

The Present Position Icon graphically displays your position on the map. While you are moving it will point in the direction you are heading.

If the SporTrak is not computing positions, this icon is replaced with an hourglass icon.

Map Scale Indicator

Provides the scale for the map. The number displayed represents approximately 1/4 of the screen's width. Scale can be changed with the IN and OUT buttons.

Track History

Dotted line on the map displays the history of where you have travelled since the last time you cleared the Track History (see Clear Memory in the Reference Chapter.)

Data Fields

These fields display navigational information for viewing on the Map screen. They are both customizable with 13 data types possible.

Both of the data fields can be turned on or off allowing more viewable map area.

Both features (customize and turning the data on/off) can be accessed from the MENU button.

Position Mode

If you require to see more of the map you can also turn off these data fields. Information as to how to customize this screen follows this brief description of the Map screen.

In the Cursor Mode, you are provided with a cursor that can be moved on the map. At the bottom of the display is the information for the position of the cursor relative to your present position. Also any points of interest that the cursor is over will be shown.

To access the Cursor Mode, press any arrow on the keypad. A crosshair appears that can be moved with the arrow keys.

To return to the Position Mode, press [**ESC**]. The cursor will disappear and the present position icon will appear centered on the map.

Cursor Icon

Map Scale Indicator

Cursor Information Block

Waypoint Name

Yellowstone NP
013ᴹ 808ʸ

Cursor Icon
The Cursor Icon pinpoints the location you have selected by using the arrow keys.

Map Scale Indicator
Provides the scale for the map. The number displayed represents approximately 1/4 of the screen's width. Scale can be changed with the ZOOM IN and ZOOM OUT buttons.

Waypoint Name
Whenever the cursor is over a map object, the name of the map object is displayed, otherwise the word "cursor" appears. The data shown in the information block is the heading and distance from your present position to the cursor.

Cursor Mode

Setting the Map Detail — The detail of the map can be set to highest, high, medium, low or lowest. This changes the zoom level that different map objects (cities, highways, labels, etc.) are displayed. If you have set a zoom level and the display is too cluttered, set the map detail to a lower level; conversely set it to a higher level to view more detail. The default is Medium.
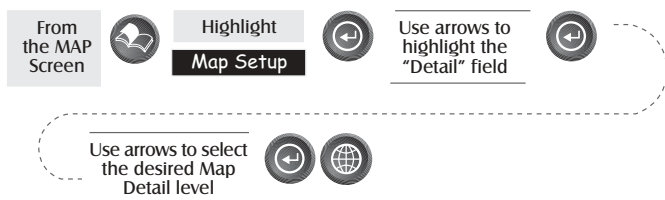
Map Screen Legend		
Present Position Cursor	▲	(Pointer)
Panning Cursor	┼	(Crosshair)
Not Computing Fixes	⧖	(Hourglass)
Waypoint		Displayed with the icon selected for that waypoint.
Oceans	▬	- dark gray
State Lines	———	- black line
Rivers	⌢ ⌐	- light gray
Lakes	▬	- dark gray
Swamps	▦	- light gray grid
Railroads	++++++	- light gray
Interstate Roads	━━	- double black line
U.S. Routes	———	- black line
Roads	———	- black line
National Parks	▦	- light gray grid

Customizing the Map Display — The Map screen can be customized for your individual needs and requirements. You can select what is being displayed on the map as well as what additional data will be presented at the bottom of the screen. Customization is broken into two parts; what items are displayed on the map and what data fields (if any) are displayed at the bottom of the screen.

Selecting Map Items

Turning On/Off Display Waypoints — Turns on or off the waypoints on the Map screen. Default is On.

From the MAP Screen		Highlight Map Setup		Use L/R arrows to select "Display" tab	Use U/D arrows to select "Waypoints"	

Turning On/Off Track Lines — As you move, your track history is normally displayed on the map screen represented by a dashed line. This function allows you to turn off or on these lines. Default is On.

From the MAP Screen		Highlight Map Setup		Use L/R arrows to select "Display" tab	Use U/D arrows to select "Track Lines"	

Turning On/Off Topographic Lines — [**Available only if a map has been uploaded from a Magellan MapSend Topo for the United States CD-ROM**] This function will hide all topo lines and topographic information. Default is On.

From the MAP Screen		Highlight Map Setup		Use L/R arrows to select "Display" tab	Use U/D arrows to select "Topo Lines"	

Turning On/Off Displayed POI's — [**Available only if a map has been uploaded from a Magellan MapSend Streets and Destinations or MapSend Topo for the United States CD-ROM**] Allows you to select which, if any, POIs that have been uploaded from a MapSend product to be displayed. Default is On.

From the MAP Screen		Highlight Map Setup		Use L/R arrows to select "Display" tab	Use U/D arrows to select POI	

Globally Turn Map Items On/Off — If you have uploaded map data from a MapSend product, you will notice that the list of POIs can be extremely lengthy. To aide you in the customization of the display you can turn everything on or off globally.

To turn off all map items, follow these instructions.

| From the MAP Screen | | Highlight **Map Setup** | | Use L/R arrows to select "Display" tab | Use U/D arrows to select **Clear All** | |

After you have turned off all of the map items, you can go back and just select the POIs that you want to view. Please note that this function will also turn off waypoints, track lines and, if applicable, topo lines. Be sure to turn these back on if you want to see them.

Inversely, to globally turn on all of the map items, follow the above steps but select "**Mark All**" instead of "**Clear All**".

Setting Up Map Data Fields — The following options are available ONLY if you are in the Position Mode of the Map screen. If you are in the cursor mode, press the ESC key and the display will snap back to the Position Mode with the arrow icon displaying your present postion. (If you are not clear on which mode you are in, the simplest way to determine it is to see what cursor is displayed; an arrow indicates Position and a crosshair indicates Cursor. If you press the ESC key and the display changes to another Nav Screen you were in the Position Mode and you can press NAV to return to the map.

Turning Data Fields On/Off — This option allows you to turn on or off the two information fields that are displayed on the Map screen. Turning these off allows for more of the map to be displayed. Default is SHOW.

| From the MAP Screen | | Highlight **Hide Map Info** or **Show Map Info** | |
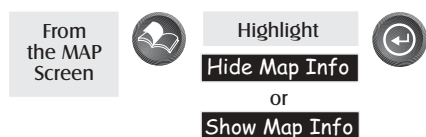
When Map Info is hidden and the map is in the cursor mode, the bearing (BRG) and distance (DIS) to the cursor is shown in the bottom left corner of the map replacing the scale. (Note: if you have uploaded topographic information from Magellan's MapSend Topo for the United States CD-ROM, the elevation at the cursor's location is displayed, not the bearing and distance.) If the cursor happens to be on a map object, the name of the object is displayed.

Selecting the Data Fields — This function allows you to select which data fields are to be displayed. You can choose from Customize Fields, Street Information or, if topographic information is loaded, you can select Horizontal Profile or Terrain Projection. If you select either Horizontal Profile or Terrain Projection and you do not have topographic information loaded a warning screen is displayed.

Two Data Fields Description — This option displays two boxes at the bottom of the map that can display data that you choose. Displaying these data fields is the default for the SporTrak.

Changing the Data Fields — Allows you to change the data that is being displayed to 1 of 13 different data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date). Note: If you have selected Hide Map Info, this option will not be available in the menu. Also, you must have the Two Data Fields displayed on the Map screen to be able to customize them. Press [**ESC**] when you are done to leave the customize mode.
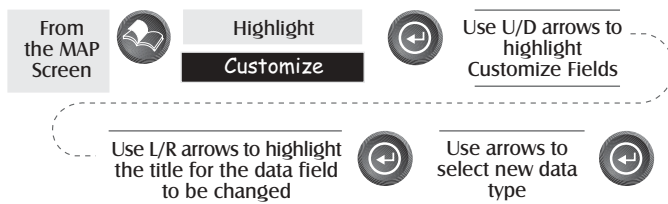
Street Information Description — This mode just displays the name of the street close to your present position.

Horizontal Profile Description — This mode displays at the bottom of the Map screen a graphical representation of the horizon at a fixed distance from your present position. This fixed distance is equal to the map scale you have selected for the Map screen, so as you zoom in or out, the horizon displayed will change. In the Horizon Profile mode, you will also notice a line projected out from your present position icon to a shorter perpendicular line. The intersection of the two lines indicates the location on the map where the horizon is being computed. (This

function requires that map data has been uploaded from Magellan MapSend Topo for the United States and that your present position as well as the projected horizon falls within the area uploaded.)

You should note that when you select Horizontal Profile, your Map Orientation will change to "Track Up" so you may need to change that when you are done viewing the horizontal profile. If you change Orientation to something other then Track Up while viewing the Horizontal Profile, the default Two Data Fields is displayed. Changing the Orientation back to "Track Up" will revert back to the Horizontal Profile.

Also, you must be zoomed in to a scale of 0.80 miles or closer for the horizontal profile to be displayed. Zoom scales higher then 0.80 miles will cause the data displayed to change to the Two Data Fields and will change back to Horizontal Profile as you zoom in to 0.80 miles and below.

Terrain Projection Description — This feature allows you to view the terrain directly ahead of you graphically. It is computed from your present position and extends in a straight line to the top of your display. This provides you with instantaneous information on what terrain elevations are directly in front of you. Your present position and elevation are indicated at the left side of the display. The maximum elevation for the terrain ahead of you is displayed above the graph, next to the map scale indicator. (This function requires that map data has been uploaded from Magellan MapSend Topo for the United States and that your present position as well as the projected horizon falls within the area uploaded.)

Like Horizontal Profile, you must be zoomed in to a scale of 0.80 miles or closer for the projected terrain to be displayed. Zoom scales higher then 0.80 miles will cause the data displayed to change to the Two Data Fields and will change back to Terrain Projection as you zoom in to 0.80 miles and below.

You should note that when you select Terrain Projection your Map Orientation will change to "Track Up" so you may need to change that when you are done viewing the projected terrain. If you change Orientation to something other then Track Up while viewing the

Terrain Projection, the default Two Data Fields is displayed. Changing the Orientation back to "Track Up" will revert back to the projected terrain.

Changing the Map Orientation — You can change how the map is orientated on the screen to either North Up, Course Up or Track Up. Default is North Up.
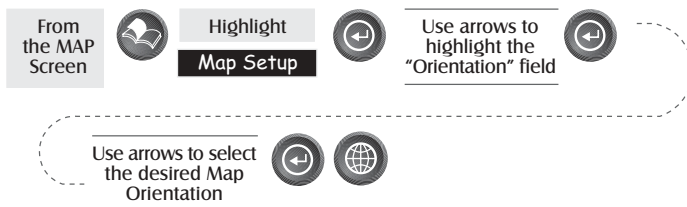
North Up	North is at the top of the screen.
Course Up	The heading of the active leg of the active route is at the top of the screen. If no route is active, North Up orientation is used until a route is activated.
Track Up	Your heading (i.e., the direction you are travelling) is at the top of the screen.

Selecting Primary Usage — The SporTrak can be set to either Land or Marine Usage. When in Land (default), the map displays land areas in white and water areas as dark gray. For marine applications it may be desirable to reverse the display, showing water as white and land as dark gray. This will make reading some of the data information on the water easier.
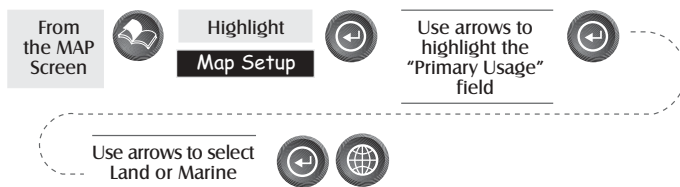
Selecting Track Mode — Allows you to set how often the SporTrak stores track points. Setting the mode to "OFF" stops the SporTrak from saving any new track points. In "Auto" or "Auto Detailed" mode, the SporTrak uses a method for track point storage that maximizes memory. Using Auto, you will see more points on and near turns and less points on straight stretches of the map. You also have the option of selecting fixed intervals for track point storage.

Setting the Track Mode to "OFF" will cause severe limitations to the ability of your SporTrak to create a backtrack route. The same temporary waypoints used to create the displayed track are used to compute a backtrack route. Therefore, it is highly recommended that you use the "Auto" Track Mode whenever possible.

Auto vs. Auto Detailed. You will notice two of the options for the Track Mode are Auto (default) and Auto Detailed. Basically, both options behave the same. While your are travelling in a straight line, only a few track points are taken, but as you turn the SporTrak increases the rate of track points. This allows for a good representation of your track with minimal track points stored. Auto Detailed performs exactly the same as Auto, but has the base rate of track points saved increased. This allows a more detailed track then Auto to be taken, while at the same time saving memory over a fixed rate.

Using Vertical Profile — Vertical Profile displays the elevation as a graphical display for the option you select.

Only Track History is available for this function if MapSend Topo for the United States map data is not uploaded. (Path Check is shown as an available function but will not display the vertical profile, however it can be used to graphically create a route. See the information on Path Check for more details.) If a topographic map has been uploaded, you have the additional options of selecting Path Check, Route or Highlighted Road.
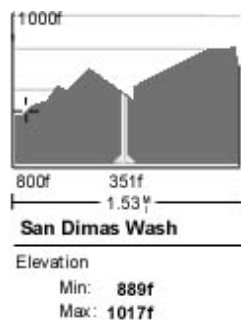
While viewing the vertical profile screen, you can use the left and right arrows to move the profile accordingly. The vertical dashed line in the middle of the profile plot provides the elevation for that point on the profile.

Selecting Vertical Profile — Note, not all options for Vertical Profile are available at all times. For example, if you have a topographical map loaded but the cursor or present position is not on a road, the option "Highlighted road" will not be displayed.

Track History Description — This option displays the vertical profile of the track that is stored in the SporTrak. If you have cleared your track, either with the Clear Track option or clearing memory, Track History cannot be accessed.

Highlighted Road Vertical Profile Description — (Available only with map data uploaded from Magellan MapSend Topo for the United States.) If the cursor or your present position is on a road and you have topographic maps loaded, you can view the vertical profile for the road you have selected.

Route Vertical Profile Description — (Available only with map data uploaded from Magellan MapSend Topo for the United States.) If you have at least one route stored in memory, you can view the vertical profile for the route. After selecting Vertical Profile, you will be asked to select the route you want to plot.

Path Check Description — Path check performs two functions. First, it allows you to create a path on the Map screen graphically and then view this path's vertical profile (assuming that you have uploaded a topo map). You can also save this path as a route, allowing an additional method of creating a route.

After selecting Path Check from the Vert. Profile menu, you will be returned to the Map screen where you can begin to lay out your path. Using the arrow keypad, move the cursor to the desired location of the path's beginning and press [**GOTO**]. Now use the arrow keypad to move to a new location and press [**GOTO**]. Notice a thick line has been drawn between the two points. Continue moving the cursor and pressing [**GOTO**] until your path is complete. When it is done, press [**ENTER**] and the vertical profile for the path is displayed.

When you are done viewing the Vertical Profile of the path you created, press ESC to return to the map screen. Now you can continue adding legs to the path.

Tip: You can convert this path into a stored route by simply pressing the MENU key and selecting the Save To Route option.

Compass Screen
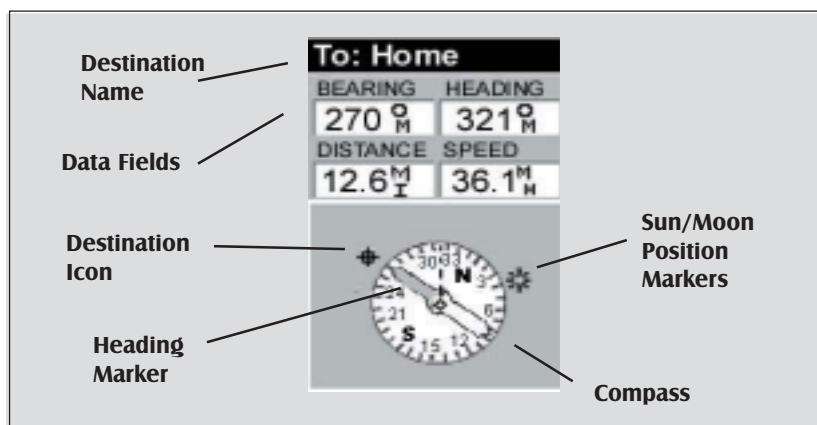
Destination Name
When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

Data Fields
Customizable data fields. The data displayed can be selected from 13 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

Compass/Heading Marker
When you have an active route, the heading marker will point on the compass in the direction of the destination. Note that you need to be moving for this data to be valid.

Destination Icon
When you are travelling on a route, an icon representing the destination of the leg or GOTO is displayed outside the compass. This provides you with the direction you need to head to arrive at the destination. When you are on course and heading straight for the destination, the destination icon will be lined up with the heading marker.

Customizing the Data Fields — Allows you to change the data that is being displayed to 1 of 13 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date) for any of the two fields.

From the Compass Screen → Highlight **Customize** → Use arrows to highlight the title for the data field to be changed →

Use arrows to select new data type
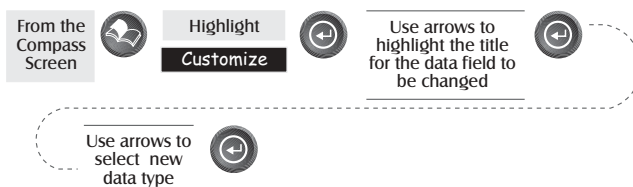
Large Data Screen

Destination Name

To: Home
BEARING
247 °M
HEADING
321 °M
SPEED
36.1 MH
DISTANCE
12.6 MI

Data Fields

Destination Name
When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

Data Fields
Customizable data fields. The data displayed can be selected from 13 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

Customizing the Data Fields — Allows you to change the data that is being displayed to 1 of 13 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date) for any of the four fields.

From the Large Data Screen → Highlight **Customize** → Use arrows to highlight the title for the data field to be changed →

Use arrows to select new data type

Position Screen

The Position screens 1 and 2 simply display your present position using the coordinate systems that you have selected in Setup. The Position 1 screen shows all of the basic position, time and satellite information, all on one screen. In addition, current navigation information is shown on the bottom half of the screen.

Selecting the Position Screen — Allows you to toggle between the two Position screens. This allows the same position to be displayed in different coordinate systems. This is useful when comparing navigation data between devices and charts that use different coordinate systems.

The screen viewed can be changed by pressing the Left or Right arrows while viewing the Position screen.

You can change the coordinate system displayed by following the instructions in *Setup - Selecting the Coordinate System.*

Resetting the Trip Odometer — Resets the trip odometer to 0000.00.

From the Position Screen → Highlight **Reset Trip** → Confirm? Yes or No

Present
Position
Coordinates
and Elevation

34 06.56N
117 49.59W
1192ft

Current Time
and Date

01:38:31 PM
06 APR 01
WAAS

GPS Status

Data Fields

HEADING   SPEED

321°M   12.6 M/H

TripOdometer
17.36 M/I

Trip
Odometer
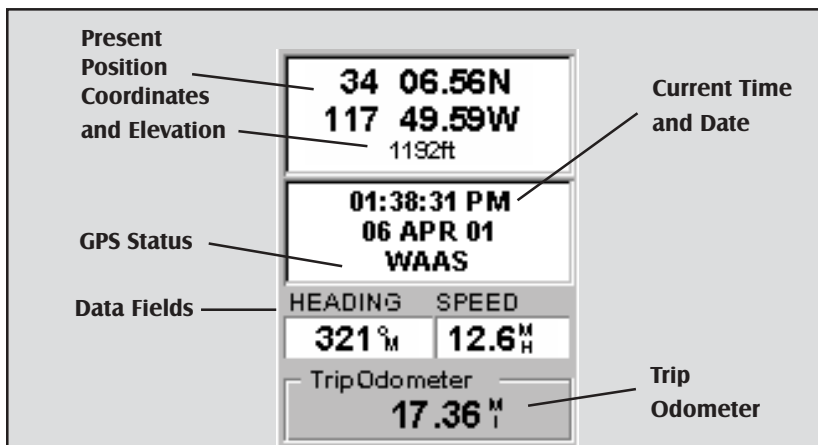
Use the Left/Right Arrows to toggle between Position 1 and Position 2

Present Position Coordinates and Elevation

Displays your present position in the coordinate system chosen in Setup. Also displays the elevation of the present position. If the SporTrak is not computing position fixes, the last computed position is displayed.

GPS Status

Provides information on the current status of the GPS receiver portion of the SporTrak.

Data Fields

Customizable data fields. The data displayed can be selected from 13 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

Trip Odometer

The odometer performs like the odometer in your car. It can be reset through the MENU button.

Customizing the Data Fields — Allows you to change the data that is being displayed to 1 of 13 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date) for any of the two fields.
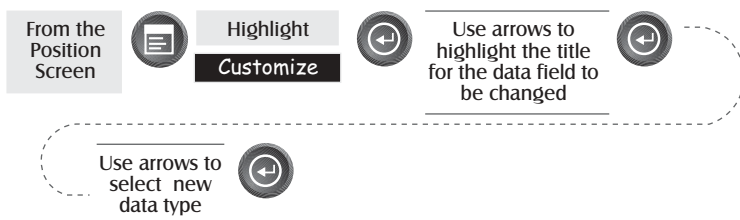
GPS Status Messages — Messages indicating the status of the GPS receiver section of the SporTrak are displayed on the Position screen.

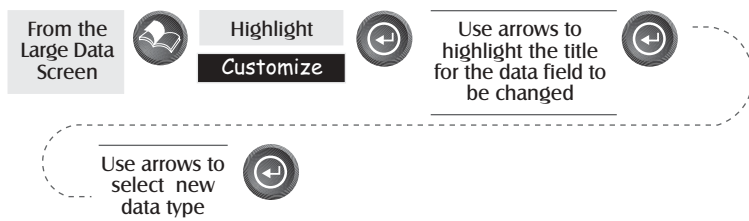| Message	Description
Searching - 1st sat	Searching for 1st satellite.
Searching - 2nd sat	1st satellite found; searching for 2nd satellite
Searching - 3rd sat	Two satellites are being tracked and searching for a third.
Searching - 4th sat	Three satellites are being tracked and searching for the fourth.
Collecting Data	All satellites needed for position fix are being tracked and position is being computed.
Averaging	SporTrak is computing fixes; speed is near 0.0 so position is being averaged.
EPE xxft	Estimated Position Error in feet. SporTrak is computing fixes while moving.
DGPS	Computed fixes are being differentially corrected.

Since the SporTrak is a 12-channel receiver, once the first satellite is found, finding the remaining satellites and computing a fix may take only a few seconds.

Selecting Coordinate System, Map Datum and Elevation Mode —
Allows you to change the coordinate system, map datum and elevation mode for the primary and secondary Position Screens. These functions perform identically to the same functions described in the *Setup* section of this manual. Simply described, you press [**MENU**] from either Position screen, select the option, press [**ENTER**] and follow the prompts.

Projecting a Waypoint — This function, found on the menu associated with the Position Screen, allows you to create a new waypoint that is a fixed distance and bearing from your present position or from any waypoint/POI stored in the SporTrak.

An example of waypoint projection would be if you wanted to go to a location that is 2.0 miles and due north of your current position. You would access the waypoint projection function and enter 2.0 as the distance and a bearing of 0°. The Waypoint Projection Screen would compute the coordinates of the "projected" location and then allows you to save this waypoint into the SporTrak's memory. From there you could simply do a GOTO to the waypoint you just created.

You can also project waypoints from any stored waypoint or POI by highlighting the "From" field and pressing ENTER. This will take you to the SporTrak's database, giving you complete access to choose from any of the waypoints/POIs that you have stored.

From the Position Screen	Highlight **Projection**	
To select a "From" location other then your present position, use arrows to highlight "From" field		Search the database to locate the waypoint or POI you want to project a new waypoint from.
Use arrows to highlight "Distance" field		Enter desired distance to project
Use arrows to highlight "Bearing" field		Enter desired bearing to project
Use arrows to highlight "Save button		Follow the directions for editing a waypoint (icon, name, etc.). Highlight "Save" and press ENTER when done

Road Screen

The Road Screen provides you with navigation information in a graphical format. At the top of the display are four customizable data fields. Immediately below them is a compass that will provide you with your heading. Following the compass is a graphical representation of your route as if it was a road. This familiar indication of where you are in regards to your planned route will provide you with the knowledge required for you to keep on track.
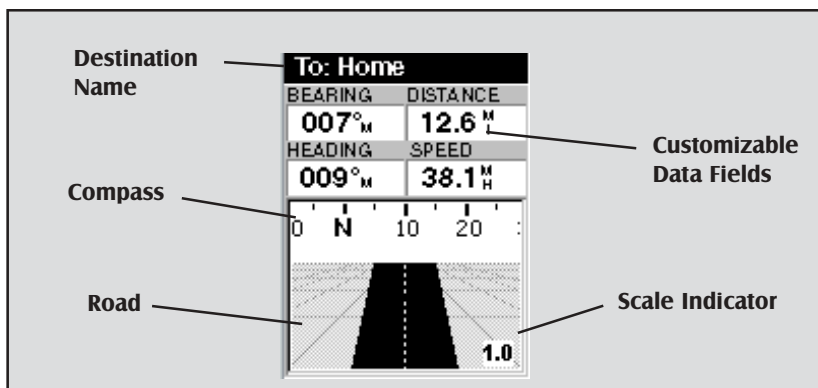
Destination Name

Compass

Road

To: Home
BEARING   DISTANCE
007°ᴍ   12.6 ᴹ ᴸ
HEADING   SPEED
009°ᴍ   38.1 ᴹ ᴴ

0 N   10   20

1.0

Customizable Data Fields

Scale Indicator

Destination Name
When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

Data Fields
Customizable data fields. The data displayed can be selected from 13 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

Compass
Displays your heading in a familiar compass format.

Road
This graphically displays the route (GOTO or other routes) that is active. As you move left or right of your intended track, the road will move on the display indicating which way you need to steer to get back on track. Ideally, the road would be centered on the display. Also, you will see upcoming turns in advance allowing you to make necessary preparations.

Scale Indicator
Use Zoom In/Out to change the scale.

Customizing the Data Fields — Allows you to change the data that is being displayed to 1 of 13 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date) for any of the four fields.

```
From the          Highlight        Use arrows to
Road                               highlight the title
Screen           Customize         for the data field to
                                   be changed

        Use arrows to
        select new
        data type
```
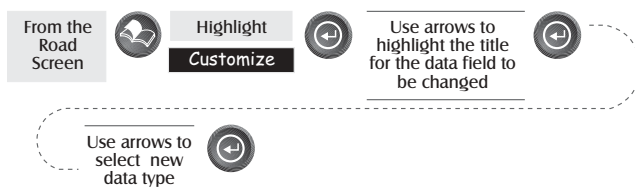
Satellite Status Screen

Satellite Position Graph
Position Mode
Satellite Position
Satellite Signal Strength Chart
WAAS Satellites
Power Source
Battery Life Indicator

Satellite Position Graph
The two circles indicate satellite elevation as seen from your current position; the outer circle represents the horizon and the inner circle represents 45° from the horizon. The center of the circle is 90° from the horizon, or directly overhead.

Satellite Signal Strength Chart
Clear bar indicates that the SporTrak is starting to get information from the satellite. Satellites that are being used to compute your position are shown with solid bars. The height of the bar indicates the relative signal strength.

Power Source
Indicates the source of power being used — POWER (Internal Battery) or POWER EXTERNAL.

Position Mode
3D - position computed is 3-dimensional (elevation is being computed).
2D - position computed is 2-dimensional (elevation is not being computed).
Blank - SporTrak is not computing a position fix.

Satellite Position
Where the satellite is located relative to your position.

Waypoints / Database

Accessing Waypoints in the Database — All stored waypoints, whether user-input or preloaded, can be found in the Waypoint Database. You will need to access waypoints in the database whenever you are editing waypoints, activating a GOTO route or creating a multileg route.

From Any Screen		Highlight / Database		Use up/down arrows to select category

	Use left/right arrows to select "Find By"		
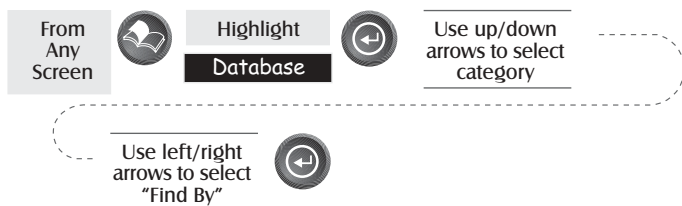
Selecting Waypoints from the Nearest List.

If *Near Position, Near City* or *Near Cursor* is selected as the "Find By" option for the database or if User was selected as the category, you will be presented with a list of waypoints that you can choose from. The information at the bottom of the screen indicates the bearing and distance to the highlighted waypoint from your present position.

Cities

San Dimas
Glendora
La Verne
Covina
Azusa
Pomona
Vincent
Claremont

Bearing Distance
052°   0.98M

Use up/down arrows to highlight waypoint	

Selecting Waypoints from the Alphabetical List.

If *Alphabetical* is selected as the "Find By" option for the database a slightly different screen from the Nearest list is displayed. A keyboard is graphically displayed allowing you to enter the name of the waypoint or map object you are looking for. You need not enter the entire name, just enough letters to narrow the search down. (A minimum of four characters is recommended.) Selecting "OK" and

Cities

AARONSBURG

A B C D E F G H
I J K L M N O P
Q R S T U V W X
Y Z 1 2 3 4 5 6
7 8 9 0 · , @ #

<-   ->
OK   Clear

pressing enter brings up a listing of the waypoints, starting with the one you entered at the top.

Note: When selecting the User category, the SporTrak does not use the keyboard display.

Selecting Waypoints Nearest to the Cursor. As discussed in the Map Screen section, the Map Screen has two modes of operation, position and cursor. If you are in the cursor mode you may want to know what waypoints are near your cursor rather than the ones nearest to your present position. You can do this by selecting the "Find By" option of *Near Cursor*. You are then presented with a list of waypoints that are close to the cursor for the category you selected.

After the list is presented, you can use the Up/Down arrows to highlight a waypoint, and press ENTER to view information on it. When highlighting a waypoint, the bearing and distance from the cursor to the waypoint is displayed at the bottom of the list.

Note: The "Find By" option *Near Cursor* is only available when the Map screen is in the Cursor Mode.

Saving Present Position as a Waypoint — Creates and stores your present position into the memory of the SporTrak. Stored waypoints can be used in GOTO and route creation. While saving the waypoint, you can edit the icon, name and add a message or you can just save the waypoint using the default name supplied by the SporTrak.

From Any Screen		Use up/down arrows to highlight Mark		Modify (see Note)	

(Note: To modify the icon, name or message use the Up/Down arrows to highlight the field you wish to change and press ENTER. You are then placed into the *Edit Mode*. Using the method described in "Getting Started" you can personalize the waypoint, making it easy to remember what it is.)

Creating New Waypoint Manually — Allows the creation of a new waypoint with coordinates other than your present position. The coordinates for the new position need to be entered manually.
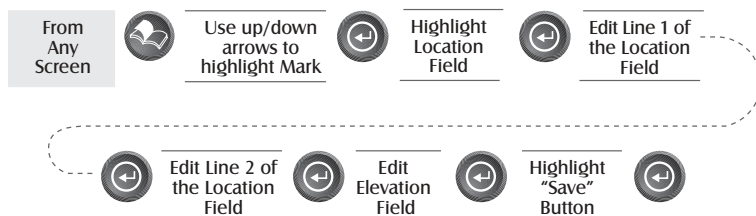
From Any Screen		Use up/down arrows to highlight Mark		Highlight Location Field		Edit Line 1 of the Location Field

	Edit Line 2 of the Location Field		Edit Elevation Field		Highlight "Save" Button	

(Note: To modify the icon, name or message use the Up/Down arrows to highlight the field you wish to change and press ENTER. You are then placed into the *Edit Mode*.)

Creating New Waypoint with Map Cursor — Provides a method of creating a new waypoint with coordinates other than your present position. The new coordinates are computed automatically based on the location of the map cursor.

| From Map Screen | | Use arrow keys to move cursor to desired | | Use up/down arrows to highlight Mark | | Modify (see Note) | |

(Note: To modify the icon, name or message use the Up/Down arrows to highlight the field you wish to change and press ENTER. You are then placed into the *Edit Mode*.)

Deleting a User Waypoint — Deletes a waypoint that you have created.

| From Any Screen | | Highlight Database | | Highlight User | | left/right arrows select "Find By" |

| | Select Waypoint to be Deleted | | Highlight Delete | |

| Confirm? Yes or No | |
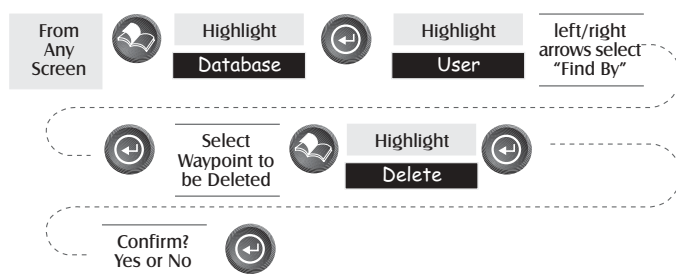
Editing a User Waypoint — Allows you to edit a waypoint that you have already stored in the SporTrak's memory.

| From Any Screen | | Highlight Database | | Highlight User | | left/right arrows select "Find By" |

| | Select Waypoint to be Edited | | Select Field to be Edited | | Edit the Field |

| Repeat selecting and editing fields until all changes are complete | Highlight "Save" button | |
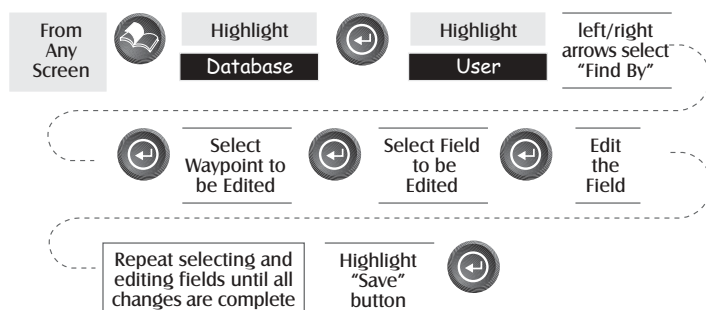
An alternative method to entering the edit mode is after highlighting the waypoint you wish to modify press MENU. Highlight Edit WPT and press ENTER.

Viewing a Map Object on the Map — Displays on the Map the Map Object you have selected.

Note: This function is for viewing map objects (cities, airports, etc.) only. See Viewing User Waypoints on the Map for instructions on how to perform this feature using User waypoints.

Viewing a User Waypoint on the Map — Locates and displays on the Map the selected User Waypoint.
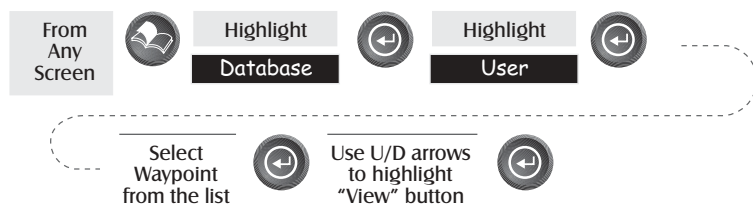
Note: If the waypoint is used in a route you will get a warning that it is in a route after selecting it from the list. This is because the screen that you access the view button can also be used to edit the waypoint and it may be undesirable to edit a waypoint that is being used in a route.

Also note that any edits you make to the waypoint are not saved when you use the View button. You need to highlight the Save button and press ENTER to record your changes.
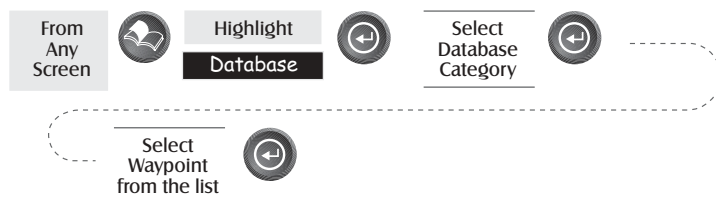
Saving a Map Object as a User Waypoint — Saves a Map Object as a waypoint to be stored in your User Waypoint List. You would do this should you want to modify the object or if you wanted to use the object as a waypoint in the Sun/Moon or Fish/Hunt functions.

Follow the instructions above for *Viewing a Map Object on a Map*. Press and hold GOTO for 2-3 seconds. Edit any field of the waypoint that you want and when you are done, highlight "Save" and press ENTER.

Searching for a Street Address — This option allows you to search an uploaded map database for a specific street address. After finding the address, you can save it as a waypoint ("Mark") or view it on the Map Screen.

NOTE: The option is available ONLY if you have uploaded one or more detailed maps from the Magellan MapSend Streets CD-ROM.
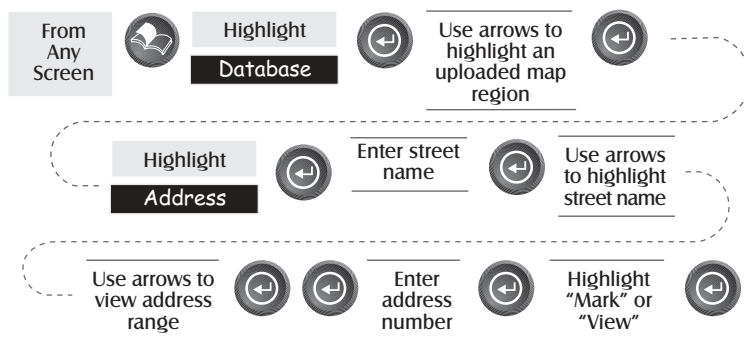
Mark. If you select "Mark" and press ENTER, the Edit Waypoint screen is displayed. You can now change any of the attributes for this waypoint. Highlight "Save" and press ENTER to record this waypoint into the memory of the SporTrak.

View. Selecting "View" and pressing ENTER returns you to the Map Screen in the Cursor Mode with the cursor on the address you entered. From this point, you can create a waypoint by pressing and holding the GOTO button.

Note: The address search has some limitations and is based upon the map that was uploaded from the MapSend Streets software. While you are entering the address you will notice that the available range is displayed on the screen. Addresses entered must fall within that range.

Routes

Creating a GOTO Route — Creates and sets as the active route a 1-leg route with your present position as the starting point and a destination waypoint that you choose from the waypoint database.

From Any Screen		If a GOTO route already exists, you will be asked to clear it.	Select Waypoint Category	Use left/right arrows to select "Find By"	

	Select Waypoint from List	
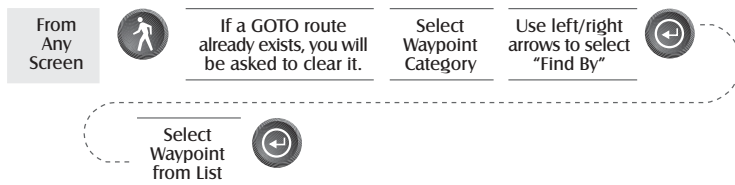
GOTO routes are not saved in memory. When you turn your SporTrak off and then back on, the GOTO route is gone. You need to create a new GOTO route if you intend on completing the route.

Also note that when you are selecting the Waypoint Category you are being instructed to select the "Find By". You can select only those waypoints in your general vicinity (Near Position) or all of the waypoints in the category in alphabetical order (Alphabetical).

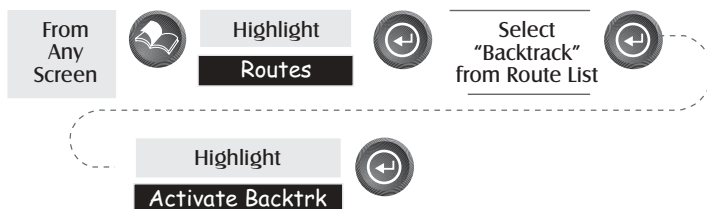**Creating a Backtrack Route —** Creates a route using track information stored in the SporTrak to "retrace" your steps. A good example of using a backtrack would be if you were out hiking or jogging with your SporTrak turned on and computing position fixes. After 30 minutes you choose to return to where you started, following the same route you just took. All you need do is follow the instructions below and let the SporTrak take you there.

From Any Screen		Highlight **Routes**		Select "Backtrack" from Route List	

	Highlight **Activate Backtrk**	

Creating a Multileg Route — Provides the means to create a multileg route that can be stored in memory.

Multileg routes are easily the most complicated function in the SporTrak, but once you can visualize what a multileg route (route) is, it becomes very easy to understand and create. If you understand that a GOTO is a 1-leg route with a starting point and a destination point,

then imagine a bunch of GOTO's strung together where the destination of one GOTO is the starting point for the next GOTO. That means if you had three GOTO's, one from "A" to "B", another from "B" to "C" and a third from "C" to "D" you could then put them together to make one multileg route. In this example you would have a 3-leg route that went from "A" to "B" to "C" to "D".
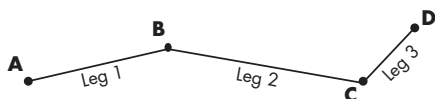
These routes have an advantage over GOTO's in that A) the starting point does not have to be your present position, B) they are always in memory and if activated they remain activated, even when you turn the SporTrak off and then back on, and C) they can be saved and used over and over again.
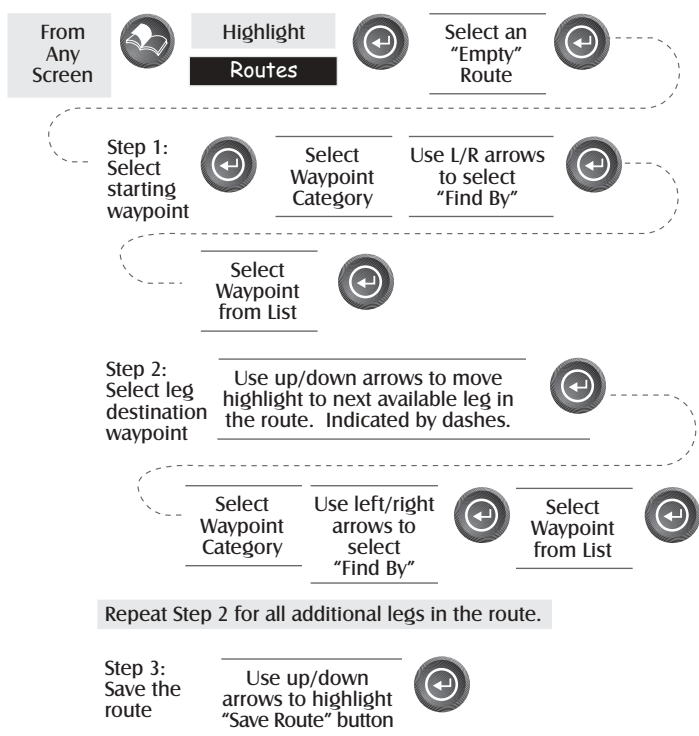
Sample Route List

Sample Route Create

(Bold route indicates "Active" route)

(Note: these routes have been termed "multileg" in an effort to make the understanding of them a little clearer, however you could create a 1-leg route and save it in the SporTrak's memory.)

Activating/Deactivating a Route — Enables the activating or deactivating of a stored route. When a route is being used to navigate, it is termed to be "active". When you want to use a route to navigate with, follow these steps to activate it.

(Note: If the route is active, the SporTrak will automatically display "Deactivate Route" in the menu and inversely if the route is not active, "Activate Route" will be displayed.)

Viewing a Route — Allows you to view the legs of a route using the same screen that was used to create the route. Viewing a route can be used if you just wanted to see the components of the route or as a precursor to editing the route.

Editing a Route — Enables you to modify an existing route by inserting a leg, deleting a leg or replacing a leg. Follow the instructions above for *Viewing a Route* and then use the instructions for inserting, deleting, replacing or appending a leg as appropriate.

When you are done with editing the route, use the Up/Down arrows to highlight the "Save Route" button and press ENTER.

Inserting a Leg — Inserts a waypoint in the middle of an existing leg thereby making two legs where there used to be one.

Select route to be edited. See Instructions for Viewing a Route

Highlight destination waypoint for leg that will have a leg inserted.

Highlight Insert

Select Database

Select Waypoint

In the example of a route that goes from "A" to "B" to "C" to "D", if you wanted to insert the waypoint "E" between "B" and "C" you would highlight the waypoint "C" and follow the steps to insert waypoint "E". Your route would then be "A" to "B" to "E" to "C" to "D".

Deleting a Leg — Deletes a leg from the route.

Select route to be edited. See Instructions for Viewing a Route

Highlight destination waypoint for leg that will be deleted.

Highlight Delete

Replacing a Leg — Replaces the destination of an existing leg with a new destination.

Select route to be edited. See Instructions for Viewing a Route → Highlight destination waypoint for leg that will be replaced. →
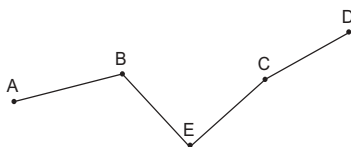
Highlight **Replace** → Select Database →

Select Waypoint →
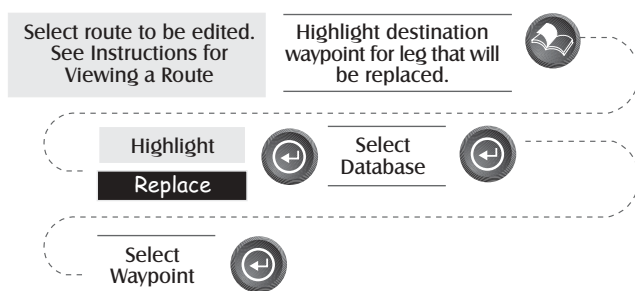
Appending a Leg — Adds a leg to the end of a route.

Select route to be edited. See Instructions for Viewing a Route → Highlight next available leg. (Indicated by dashes) →

Select Database → Select Waypoint →
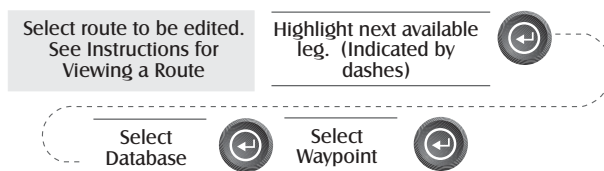
Appending a Newly Created Waypoint to a Route — Allows a newly created waypoint to be appended to any route in memory.

Create a Waypoint by pressing the GOTO button. Can be present position, user-generated position or by using Map Cursor to locate position. →

Edit/Modify Waypoint as desired. → Highlight "Route" Button → Select Route →
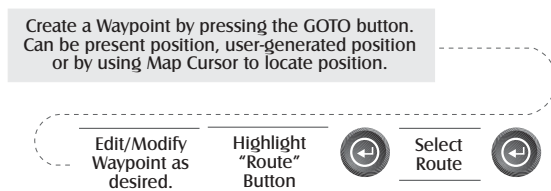
Reversing a Route — Allows any route in memory to be reversed. In the example used earlier of "A" to "B" to "C" to "D", if this route were reversed it would end up as "D" to "C" to "B" to "A".

From Any Screen → Highlight **Routes** → Select Route →

Highlight **Reverse** →
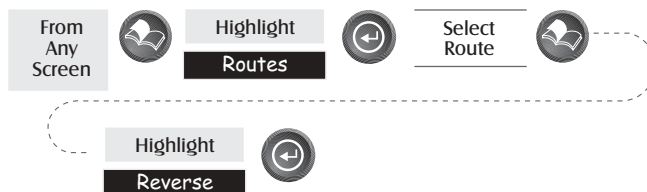
Deleting a Route — Enables the deletion of any route in memory. Useful when you want to add a new route but no "EMPTY" routes are available.
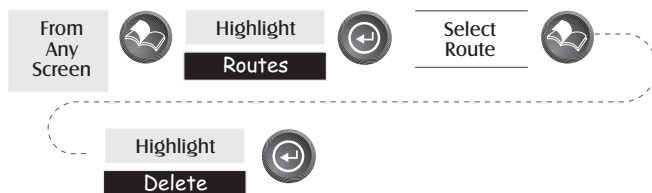
Viewing a Route on the Map Screen — Provides you with a graphical representation of the route selected on the Map screen.
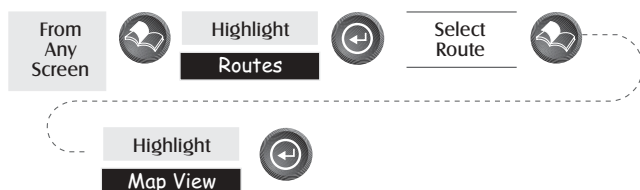
Creating a Route Using Track History — This enables you to automatically create a multileg route using your track history. This route will be saved to your route list with a naming convention of "T01P01 to T01Pxx" where Pxx indicates the number of points in the route.
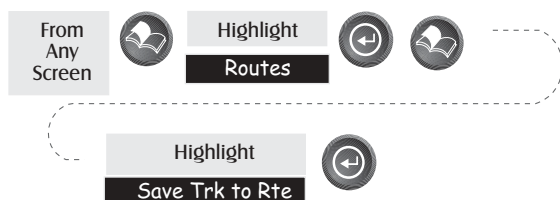
Setup

Initializing the SporTrak — Enables you to initialize the SporTrak should it be needed to speed up satellite acquisition. Two such instances would be travelling over 500 miles with your SporTrak turned off or complete loss of memory.
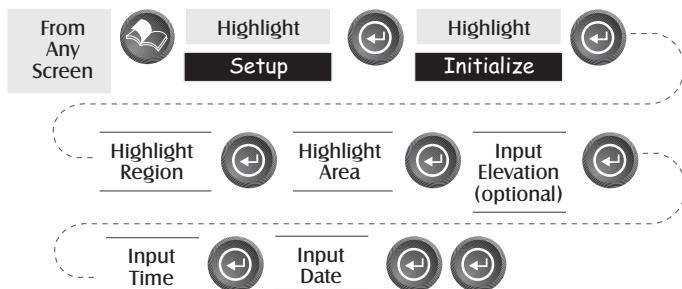
Turning NAV Screens On/Off — Allows you to turn off or on any of the navigation screens you choose.
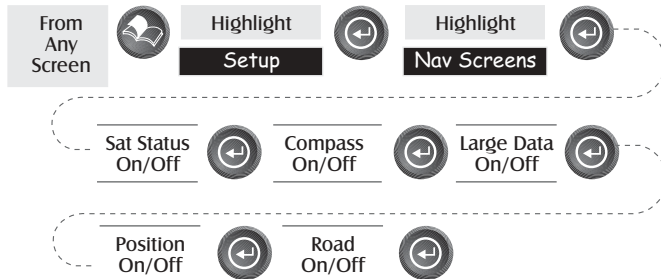
(Note: you must go through the entire sequence of nav screens for your selections to be saved. As an example, if you turn the Sat Status screen off and press ESC before confirming all of the nav screens, your selection will not be saved and the Sat Status screen will still be on.)

Default: All On

Selecting the Coordinate System — Allows you to set the coordinate system that will be used to display the position for the primary or secondary position screen. Available coordinate systems are: Lat/Lon, UTM, OSGB, Irish, Swiss, Swedish, Finnish, German, French, USNG, MGRS, or User Grid.
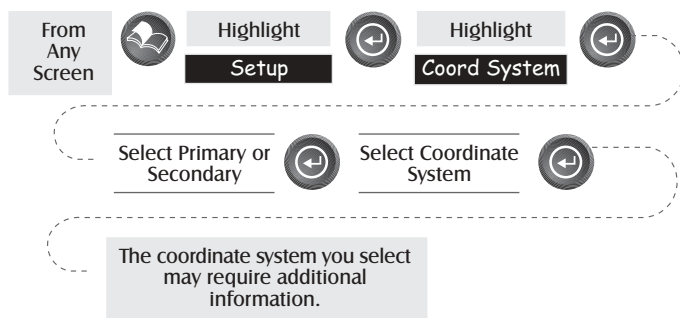
Default: Primary - Lat/Lon   DEG.MIN.MMM
Secondary - UTM

Selecting a Map Datum — Allows you to set the datum used to compute the coordinates to match the datum used on a map or chart. If you are using a map or chart with your SporTrak and the datums do not match, you may find irregularities when comparing the coordinates.
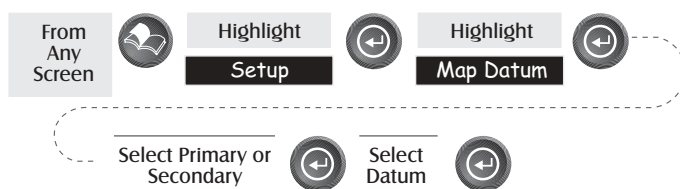
Default: Primary - WGS84   Secondary - WGS84

Selecting the Elevation Mode — Allows you to select the elevation mode used by the SporTrak. You may choose between 3D (uses satellite information to compute elevation) or 2D (displays a fixed elevation based upon the elevation entered).
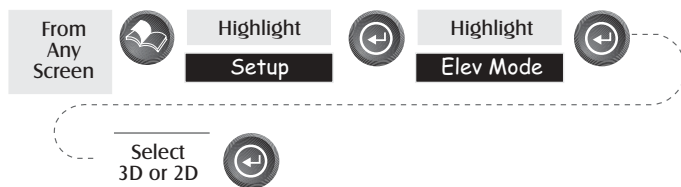
Default: 3D

Selecting the Time Format — Enables you to choose from three different time formats: Local 24 Hr (military time), Local AM/PM or UTC.
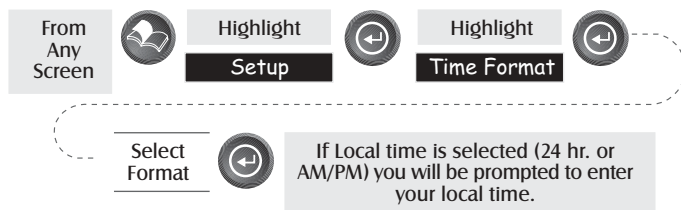
Default: Local AM/PM

Selecting NAV Units — Allows you to select the units of measure that will be used when displaying navigational data. Options are: Miles/MPH, NM/Knots or KM/KPH.
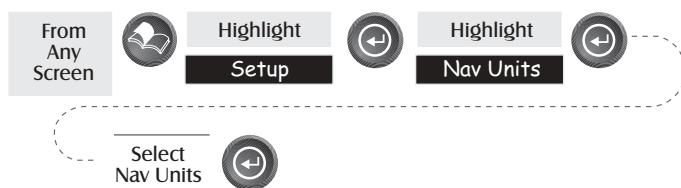
Default: Miles/MPH

Selecting the North Reference — Allows the selection of whether the SporTrak uses True North, Magnetic North, Military True or Military Magnetic as its North reference.
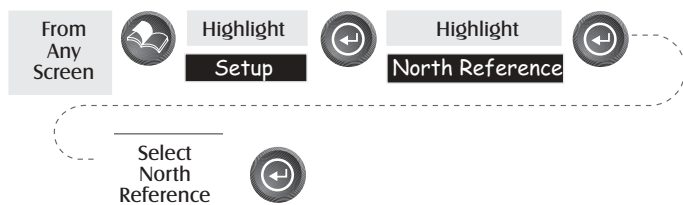
Default: Magnetic

Setting the Backlight Timer — Allows you to set the time interval that will be used to turn off the display backlight when not in use. Times available are: 30 seconds, 1 Minute, 2 Minutes, 4 Minutes, 10 Minutes or Timer Off.
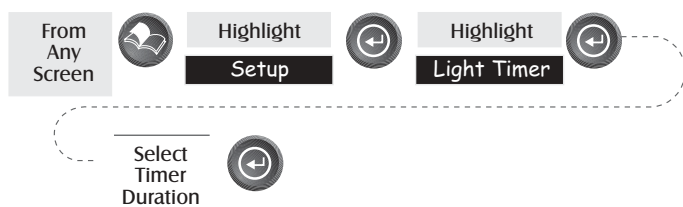
Default: 4 Minutes

Turning the Beeper On/Off — Allows you to select which actions will cause the beeper to sound. You can choose from Off, Keys Only (pressing a key causes a beep), Alarms Only (when an alarm is activated) or Keys & Alarms.
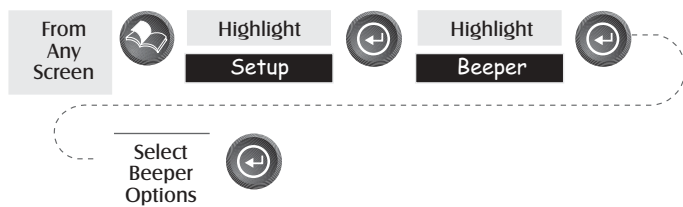
Default: Keys & Alarms

Selecting NMEA Message — Allows the selection of the NMEA message that will be output from the SporTrak. Choices are Off, V1.5 APA, V1.5 XTE or V2.1 GSA. Your choice will be dependent upon what message the device you are connecting to needs to receive.
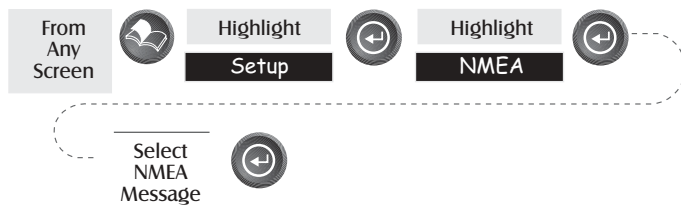
Default: Off

Selecting the Baud Rate — Enables you to set the baud rate of the data being sent out from the SporTrak's output port. The baud rate sent out must match the baud rate that the receiving device is set for. You can choose from 1200 baud, 4800 baud, 9600 baud, 19200 baud, 57600 baud or 115200 baud.
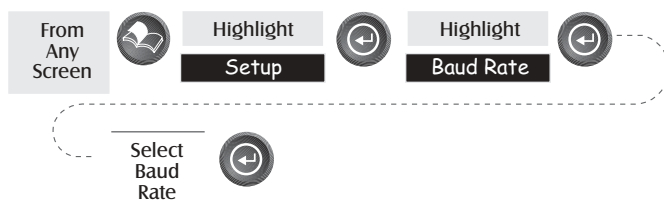
Default: 4800 Baud

Selecting Daylight Savings — Allows you to select what region you are in which will allow the SporTrak to automatically adjust the time displayed to compensate for daylight savings time. You can select United States (daylight savings starts on the first Sunday in April and ends on the last Sunday in October), European Union (daylight savings starts on the last Sunday in March and ends on the last Sunday in October), or you can select Customize which allows you to set the month and day that daylight savings starts and ends in your area.
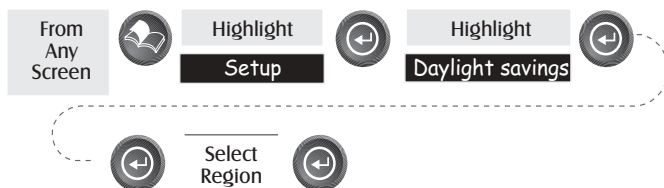
Default: The appropriate daylight savings time (United States or European Union only) will automatically be set by the SporTrak during startup when you use the SporTrak for the first time.

Power Off Timer — Conserving battery life is important to any GPS user and the power off timer provides another tool in saving battery life. Selecting "On" will allow you to select the mode and how long the SporTrak will stay powered on. If the mode you select is "Time", the timer field allows you to select time that the SporTrak will remain on before automatically powering off if no keys are pressed. If the mode selected is "Position", the timer field sets how soon the SporTrak will be powered down when the position hasn't changed and if no keys have been pressed.
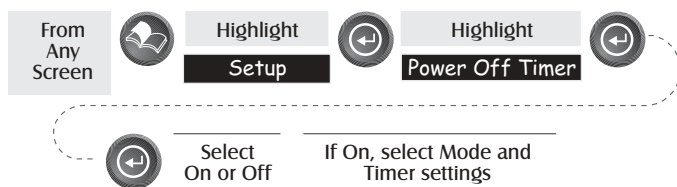
Default: Off

Clearing Memory

All of the Clear functions operate in the same way. The instructions shown apply to all of the Clear options except Clearing All.
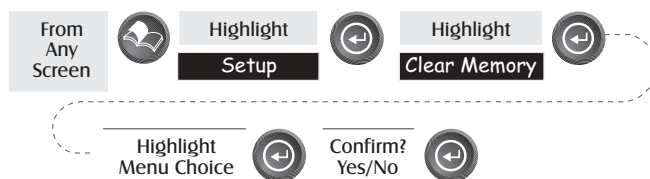
Clearing Track History — This will clear the track history that is displayed on the Map screen from memory.

Clearing Wpts/Routes — This will clear all waypoints and routes from the SporTrak's memory.

Clearing all Routes — This clears all routes from the SporTrak's memory.

Resetting SporTrak to Factory Defaults — Allows you to reset all of the Setup choices to the factory defaults.

Clearing All Memory in the SporTrak — This clears all memory from the SporTrak. After completing these instructions, the SporTrak will shut off. The next time it is turned on, it will prompt you that it needs to be initialized.
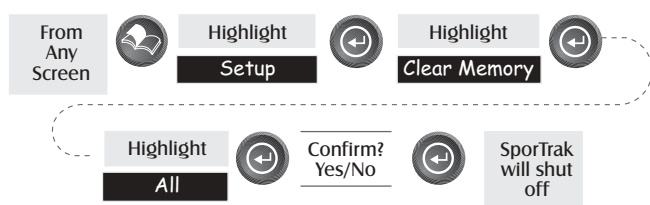
Changing Languages

You can select from one of nine languages (English, French, German, Swedish, Spanish, Italian, Dutch, Portuguese or Finnish) to be used by the SporTrak.

| From Any Screen | 📖 | Highlight **Setup** | ↵ | Highlight **Languages** | ↵ |

| Select desired language | ↵ |
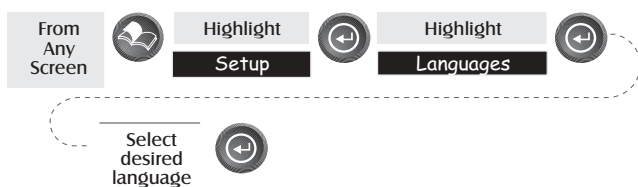
TIP: If you change the language setting in the SporTrak just to see what it looks like and need to get back to the Language Select screen, follow these instructions. Press NAV until the MAP screen is displayed and press MENU. Select the seventh item in the list and press ENTER. Press the Up Arrow once and press ENTER. You are back at the Language Select screen.

Sun/Moon Display

Accessing the Sun/Moon Screen — The Sun/Moon screen displays the sunrise time, sunset time and lunar phase for any waypoint you have stored in the User category in the waypoint database. All times displayed are local times to your present position.

| From Any Screen | 📖 | Highlight **Sun/Moon** | ↵ |

Changing the Sun/Moon Date — Allows you to change the date for the sun/moon information for the position selected.

| From Any Screen | 📖 | Highlight **Sun/Moon** | ↵ | Highlight Date Field | ↵ |

| Use arrows to change date | ↵ |
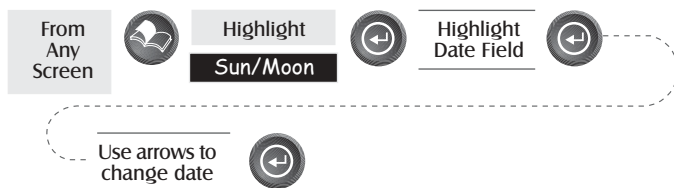
Changing the Sun/Moon Position — Allows you to change the position that you want to view the sun/moon information for. The default is "Position" which is your present position.

From Any Screen → [book icon] → Highlight **Sun/Moon** → [enter] → Highlight At Field → [enter] ⟶

⟶ Use left/right arrows to select "Find By" → [enter] → Highlight Waypoint → [enter]
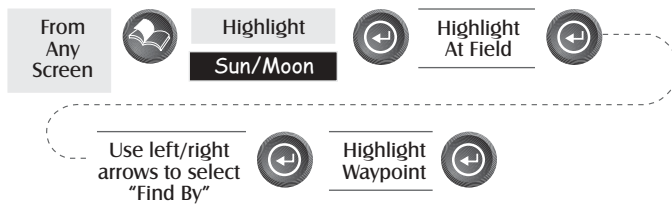
Fish/Hunt Times Display

Accessing the Fish/Hunt Screen — The Fish/Hunt screen displays the best times for fishing or hunting for the position you choose from your User waypoints.

From Any Screen → [book icon] → Highlight **Fish/Hunt** → [enter]

Changing the Fish/Hunt Date — Allows you to change the date for the fishing/hunting information for the position selected.

From Any Screen → [book icon] → Highlight **Fish/Hunt** → [enter] → Highlight Date Field → [enter] ⟶

⟶ Use arrows to change date → [enter]
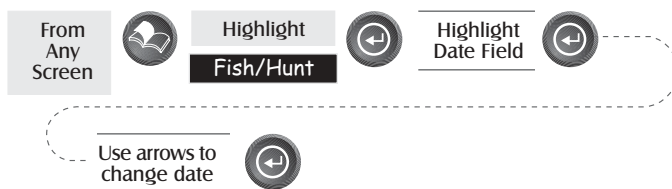
Changing the Fish/Hunt Position — Allows you to change the position that you want to view the fishing/hunting times for. The default is "Position" which is your present position.

From Any Screen → [book icon] → Highlight **Fish/Hunt** → [enter] → Highlight At Field → [enter] ⟶

⟶ Use left/right arrows to select "Find By" → [enter] → Highlight Waypoint → [enter]
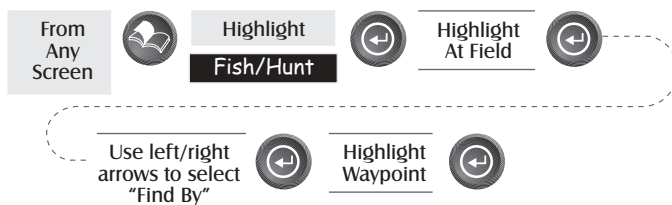
Alarms

All of the Alarm options are set in the same way. The instructions below apply to all of the Alarm settings. When the beeper is turned on for alarms (see Setup - Turning the Beeper On/Off) an audible beep will be sounded for the alarm. A visual alert is displayed for the alarm whether the beeper is turned on or off.
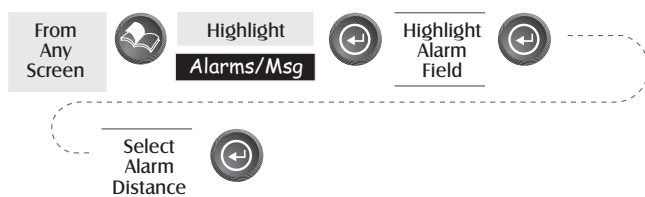
Setting the Arrival Alarm — The arrival alarm alerts you that you have arrived at the destination of your GOTO or to the destination of any leg in a route you are navigating on. This option allows you to set the distance from the destination that the alarm will begin to sound.

Setting the Anchor Alarm — The anchor alarm will sound when you have drifted from your anchor point at a distance you set. An example of its use would be as you set anchor you turn on the anchor alarm to beep at a given distance. With the SporTrak still operating and computing fixes you can then go fishing or other activities knowing that if you drift more than the distance you selected, the SporTrak will alert you.

Setting the XTE Alarm — XTE or cross track errors happen when you are off course for the route you are navigating on. The distance set in the alarm is the distance left or right of the heading you are supposed to be travelling on.

Setting the GPS Fix Alarm — This turns on or off the alarm that can sound whenever the SporTrak has lost its ability to compute position fixes due to loss of signal from the satellites. This is handy in that it alerts you that you may need to move to an area that has a clearer view of the sky.

Turning on the Simulator - Auto Mode — This turns the simulator on and uses a predefined heading and speed rate.

From Any Screen		Highlight Setup		Highlight Simulate	

	Highlight Auto		Confirm Clearing of Track	
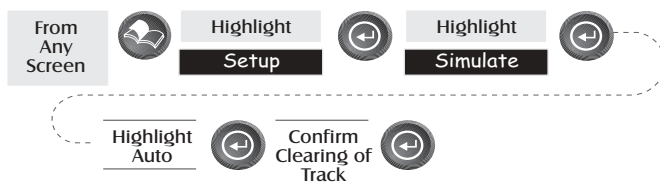
Turning on the Simulator - User Mode — This turns the simulator on and uses a heading and speed rate that you define.

From Any Screen		Highlight Setup		Highlight Simulate	

	Highlight Auto		Confirm Clearing of Track	
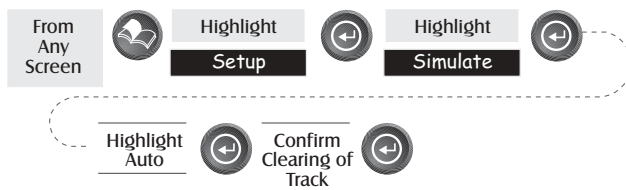
Turning the Simulator Off — Turns the simulator off and returns the SporTrak to normal operation.

From Any Screen		Highlight Setup		Highlight Simulate	

	Highlight Off	
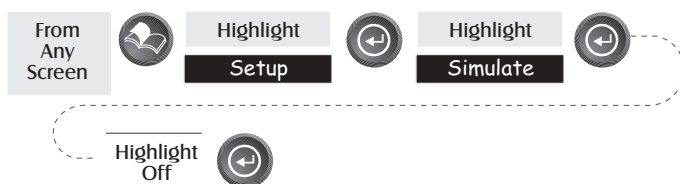
About... Screen

The About... screen displays the current status of your SporTrak. Using the About... screen you can tell what the version of the software is, the version and memory size of the base map, the number of and total memory size of detailed maps you may have installed using MapSend Streets™, and how much free memory is available.

Help Screen

You can view help tips for Nav Screens, Map, Routes, Setup, Database, User Waypoints and Misc Topics. Each topic has a number of tips available that can be viewed.

Use the "Next" and "Prev" buttons to scroll the SporTrak Help Files.

Frequently Asked Questions

General

What is the difference between degrees/minutes/seconds (DEG/MIN/SEC) and degrees/minutes/minutes (DEG/MIN/MMM or DEG/MIN/MM)?

> There are different ways in expressing the coordinates computed using Lat/Lon coordinate system. With DEG/MIN/SEC the final set of numbers (SEC) is expressed as 0-59 while DEG/MIN/MM expresses the same value as 0-99 and DEG/MIN/MMM is from 0-999. It would be the same as if you had one clock that expressed time as hour/minutes/seconds and another clock that expressed the same time as hours/minutes/decimals. The accuracy for any of the three is the same. Which you choose is dependent upon your preference or any chart you are using at the same time. (You should always make sure that your SporTrak is setup to be the same as any map or chart you may be using.)

What is 2D vs. 3D?

> The difference is primarily how many satellites are used to compute the position fix and how elevation is computed. In 2D (two-dimensional) only three satellites are needed for a position fix and elevation is not computed. Any elevation displayed by the SporTrak during 2D operation is the elevation you entered. In 3D (three-dimensional), a minimum of four satellites are needed to compute the position and at the same time, elevation is computed by the SporTrak.

When the time changes for daylight savings time will the time, in the SporTrak change automatically?

> Yes. It is automatically selected when the receiver is used for the first time or all of the memory has been cleared. If you need to change the settings for daylight savings, you can use the Setup menu item and access "Daylight savings". There you can select United States, European Union or you can use the customize option to set the rules for daylight savings in your area.

How long can I expect my SporTrak to run on a fresh set of batteries?

> Under normal operating conditions you should get up to 15 hours of use while the display backlight is turned off. This duration will drop significantly if you use the display backlight.

How often do I need to initialize the SporTrak?

> Initializing the SporTrak decreases the time it takes to get a position fix during cold start. What is meant by a cold start is that the SporTrak has no reference to use as a guide to tell it what satellites should be overhead. Without a reference to start with, the SporTrak will have to "search the sky" trying to find any satellite that may be in "view." This takes time and can increase the time it takes to get its first position fix. (Can take 10 minutes in severe conditions.)

> So where does this reference come from? Under normal operating conditions, the last position fix computed before the SporTrak was turned off is stored into memory and will be used as the reference the next time the SporTrak is turned on. However, if you cleared the memory (see Clearing Memory - All in the Reference Chapter) this stored reference point is removed from memory and you probably will want to initialize the receiver again. Also, if you travel with your SporTrak for more than 500 miles with it turned off, it will still have the reference point but it may be too inaccurate to be useful and again, you may want to initialize the SporTrak.

Waypoints/Database

What waypoints come preloaded on my SporTrak's database?

> The Database contains cities, highways, airports, waterways and national parks.

Can I delete preloaded waypoints that I don't use?

> No. Waypoints that are preloaded into the SporTrak will always be available, even when all of the SporTrak's memory has been cleared.

Navigation Screens

Why does my compass not point in the right direction?

The SporTrak computes direction by comparing your present position to the last position taken, it requires that you be moving to compute your compass heading. Furthermore, to eliminate error, you must be moving at a minimum of 0.5 mph.

Routes

What is a backtrack route?

A backtrack route allows you to "retrace" your steps. As you are moving, the SporTrak automatically creates and stores hidden waypoints into memory. These waypoints are the ones that the SporTrak will use to retrace your steps. When you create a backtrack route, the SporTrak converts these hidden waypoints into User Waypoints.

How do I know which route is active?

Access the route menu by pressing the MENU button and select the option Routes. The route menu lists all of the routes in memory with the active route displayed in bold characters.

Alarms

Why does my SporTrak not make an audible beep when I have an alarm active?

Check your setup settings for the Beeper. If the selection is Off or Keys Only, the beeper will not sound for alarms.

Output Data

What is NMEA?

NMEA (National Marine Electronics Association) is the standard used for interfacing marine electronic devices. This standard has also been adapted for use in a variety of third-party mapping software programs.

What are the NMEA message strings?

The SporTrak supports version 1.5 and 2.1 of the NMEA 0183 standard.

Additional information on NMEA can be found at on the internet at www.nmea.org, where you can purchase the NMEA Interface Standards. Another excellent source for NMEA standards is a FAQ sheet that is published on the internet by Peter Bennett at vancouver-webpages.com/peter/nmeafaq.txt.

My GPS is not communicating with my computer. What can I do?

Check your baud rate and check the baud rate that your software is using. If they don't match, change either the software's or the SporTrak's baud rate (*See Setup - Changing the Baud Rate.*)

Can I interface my SporTrak with a Macintosh computer?

Magellan does not supply cabling or software for the Macintosh line of computers. For information on a cable or software that may meet your requirements, visit GPSy at www.gpsy.com on the internet.

Appendix

Troubleshooting

Receiver will not turn on:

1. Check to see if batteries are installed correctly.
2. Replace with two new AA alkaline batteries.

Takes more than 10 minutes to get a position fix:

1. If there are any obstacles nearby or overhead, move to a new location.
2. Make sure that the antenna is pointing up, has a clear view of the sky and is a reasonable distance away from your body.
3. Check Satellite Status screen to see where the satellites are and if the receiver is acquiring data.
4. If the receiver still does not get a position fix within 10 minutes, you may wish to repeat the initialization procedure.

Receiver turns off unexpectedly

This is commonly is caused by excessive static electicity. Turn the receiver back on and it should operate normally. Move the receiver to a new location to avoid a similar occurrence.

Battery life seems shorter than it should be:

1. Make sure that you are using two AA alkaline batteries.
2. Shorter life span of the batteries can be due to excessive use of the backlight. **Turn the backlight off when not needed.**

Position coordinates on your receiver do not match the location on your map.

1. Make sure that your receiver is set up to use the same datum as your map. The map datum is generally shown in the map legend. See *Setup - Changing the Map Datum* under *Reference* for instructions on selecting the map datum in your receiver.
2. Check your LAT/LON format. Make sure that the format selected in COORDINATE SYSTEM (DEG/MIN/SEC or DEG/MIN.MM) is in the same format as the map you are using.

Position on map is not exactly on the road.

It could be caused by distance shifts to the map.

Use map data for reference and do not rely completely on it.

Data was not saved or was corrupted.

This can be caused because you removed the batteries or removed external power with the SporTrak turned on.

Waypoint Icons

These is a list of the icons and their designator that can be assigned to a waypoint while marking a position or editing a waypoint.

⊞	Default	🐟	Fuel	🍴	Restaurant
▣	Box	🌿	Garden	◼	Rock
🏠	House	⛳	Golf	🦑	Scuba
📍	Aerial	🏨	Hotel	▣	RV Service
✈	Airport	🎣	Hunt/Fish	◎	Shooting
🎡	Amusement	●	Large City	🐜	Sight Seeing
$	ATM	🔦	Lighthouse	▪	Small City
🍴	Auto Repair	◉	Major City	🏛	Sounding
⚓	Boating	⚓	Marina	🏟	Sports Arena
△	Camping	▪	Medium City	📷	Tourist Info
🦋	Exit Ramp	🏛	Museum	🚚	Truck Service
◼	First Aid	🎯	Obstruction	🍷	Winery
🐾	Fixed Nav Aid	🌲	Park	🦅	Wreck
🔑	Floating Buoy	🏨	Resort	🐕	Zoo

Contacting Magellan

If after using the troubleshooting section, you are still unable to solve your operation problems, please call Magellan's Technical Service at (800) 707-9971.

Representatives are available Monday through Friday from 7 AM to 5 PM, PST. Faxes can be sent to Customer Service at (909) 394-7070.

If necessary, you can also return your receiver to Magellan for repair. Before returning the receiver you must get a Return Materials Authorization (RMA) from Magellan. To get an RMA, contact a Magellan Technical Service Representative at (800) 707-7845 or you can send an email explaining your reasons to magellanrma@thalesnavigation.com. After receiving the RMA number, ship the receiver by Parcel Post or UPS. Include a description of the problem, your name, address, a copy of your sales receipt and print clearly on the outside of the package the RMA number assigned. If your return ship address is different, please indicate.

With all correspondence, please state the model of your receiver and if calling, please have your receiver with you.

Packages should be sent to:

<div align="center">

Thales Navigation
Magellan Products
960 Overland Court
San Dimas, CA 91773
ATTN: <RMA Number>

</div>

Additional information regarding software updates to your SporTrak can be found in the Product Support section of the Magellan web site (www.magellangps.com).

> Customers outside of the United States should contact the Magellan distributor for your country. A detailed address of each distributor can be found at www.magellangps.com/frames/frame_stores.htm.

Magellan™ is a trademark of Thales Navigation.

Specifications

CHARACTERISTICS

Performance

Receiver	12 parallel-channel technology, tracks up to 12 satellites to compute and update information with quadrifilar antenna	

Acquisition Times (under optimal conditions):

	Warm	approximately 15 seconds
	Cold	approximately 1 minute
	Update Rate	1 second continuous

Accuracy

Position	7 meters, 95% 2D RMS	
	w/WAAS <3 meters, 95% 2D RMS	
Velocity	0.1 knot RMS steady state	

Limits:

Speed	951 mph	
Altitude	17,500 meters	

Physical:

Size	5.6" x 2.2" x 1.15" [h] x [w] x [d]
	14.2 cm x 5.6 cm x 2.9 cm
Weight	6 ounces (170 grams) with 2 AA batteries installed
Display	2.2" x 1.33" [h] x [w]
	5.59 cm x 3.88 cm
	high contrast LCD with EL backlit display
Housing	Weatherproof construction, wraparound rubber armor

Temp. Range

Operating	14°F to 140°F to (-10°C to 60°C)
Storage	-4°F to 158°F (-20°C to 70°C)

Power:

Source	2 AA alkaline batteries or 9-18 VDC with power cable
Battery Life	Up to 15 hours

Memory:

SporTrak Map	2MB basemap; 4MB uploadable
SporTrak Pro	9MB basemap; 23MB uploadable

Accessories

Accessories for your receiver are available from your Magellan dealer or you can order directly from Magellan at (800) 669-4477 (press 3 to place an order).

Swivel Mounting Bracket: Mounts the receiver on a surface, allowing for hands-free operation.

Vehicle Mounting Bracket: Full swivel and tilt for easy viewing in any vehicle.

Bike Mounting Bracket: Mounts the receiver on the handlebars of a bicycle, motorcycle or off-road vehicle.

Carrying Case: The carrying case provides a way of carrying the SporTrak on your belt while at the same time protecting it from the elements.

Power/Data Cable (Bare Wires): Allows you to connect your receiver to external power and data.

PC Interface Cable with Cigarette Lighter Adapter: Connects your receiver to your PC for data transfer and to a cigarette lighter for external power.

External Power Cable with Cigarette Lighter Adapter: Allows you to connect the receiver to a cigarette lighter for external power.

PC Cable: Allows you to connect the SporTrak to a PC.

MapSend™ Streets and Destinations U.S.A.: This CD-ROM allows you to upload detailed street maps as well as extensive sets of POI's to your SporTrak receiver.

MapSend™ Topo for the United States: This CD-ROM allows you to upload detailed street maps, topographic data as well as POI's to your SporTrak receiver. (Available only with United States topographic information.)

MapSend™ Streets and Destinations - Canada: This CD-ROM allows you to upload detailed street maps as well as POI's to your SporTrak receiver for Canada.

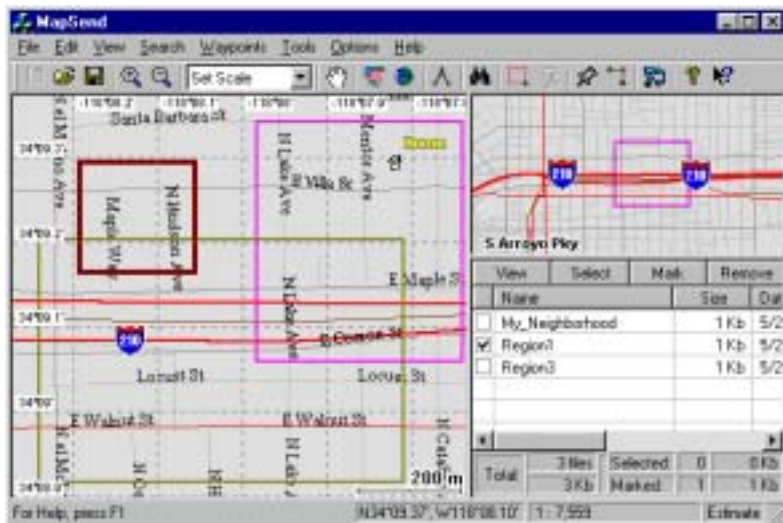**MapSend™ Streets Europe:** This CD-ROM allows you to upload detailed street maps to your SporTrak receiver for European countries.

MapSend Streets™

The MapSend Streets CD allows you to load detailed street maps into your SporTrak. The maps supplied on the MapSend Streets CD contain full street detail of North American or European cities.

Features

- Enables you to load street maps for any region in the United States, Canada or Europe into the SporTrak.

- Allows you to cut any rectangular map region you choose to load into the receiver. Maps are not pre-cut to counties or other boundaries.

- Creation, management and upload/download of waypoints and routes.

- Allows straight line distance computation on the map.

- Search for map objects (such as cities, lakes, etc.) by name.

Connecting to External Devices

Available as accessories for your GPS receiver are the following cables: External Power Cable with Cigarette Lighter Adapter, Power/Data Cable, Data Cable and PC Cable with Cigarette Lighter Adapter. The instructions given below apply to all cables, unless otherwise stated.

Connecting directly to the SporTrak.
Using the captive screw that is attached to the plug, tighten into the back of the receiver.

If you are connecting to the SporTrak while it is mounted in the Mounting Cradle, attach the cable through the back of the cradle. It is not necessary to tighten the captive screw to the SporTrak, although you may do so for added security.
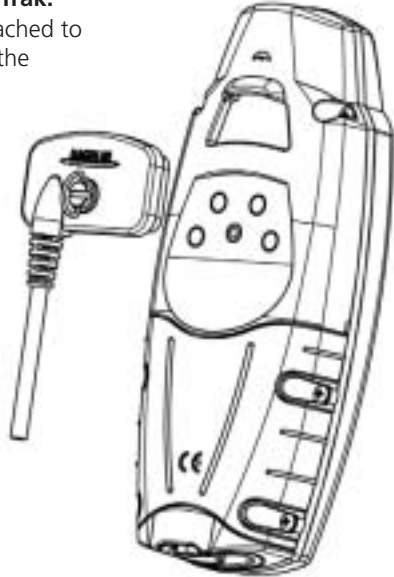
Connecting to an External Power Source

If using the cable that comes with the cigarette lighter adapter, simply connect it to the cigarette lighter outlet. If you wish to make a permanent mount to a power supply, cut the cable between the power supply box and 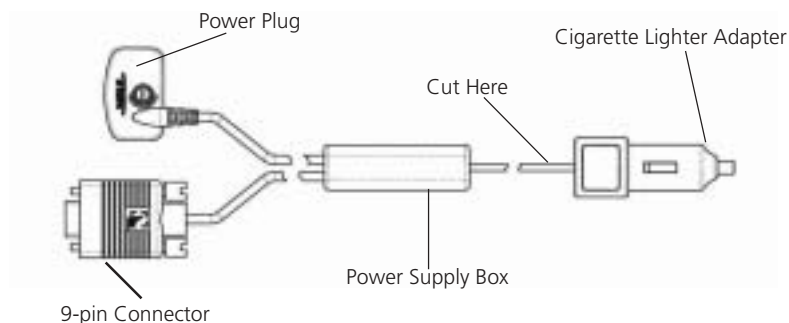the cigarette lighter adapter. Attach the red (+) and black (-) wires to your external power source. The input voltage range for external power is 9-18 VDC.

Caution: Do not bypass the power supply box or you will damage your unit and void the warranty.

Power Plug

Cigarette Lighter Adapter

Cut Here

9-pin Connector

Power Supply Box

Connecting to a Data Source
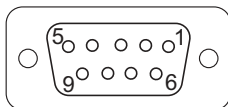
Data Connection Pinout (PC and Data cables only)

This is the pinout looking into the 9-pin female connector

Pin 2: Data Out
Pin 3: Data In
Pin 5: Ground

Cable Wiring Color Code

Power   Red: Power +
                  Black: GND

Data (Power/Data, PC cable & Data cable only)
                  Yellow: Data In
                  Orange: Data Out
                  Black: GND

WAAS

Your Magellan GPS receiver has been upgraded to include the latest WAAS (Wide Area Augmentation System) technology. With WAAS your GPS receiver can compute position locations with an accuracy never before possible in a commercial receiver.

What is WAAS? WAAS is a means of improving the accuracy of GPS beyond the standard civilian signal. WAAS was developed by the FAA to provide the accuracy needed for aircraft to perform approaches for landings. WAAS improves the accuracy of GPS by calculating the errors in the GPS signal at several monitoring stations around the country and then transmitting the error corrections to special WAAS satellites. In turn, these satellites broadcast the error corrections to WAAS-capable GPS receivers around the world.

WAAS is a free service and, with the small exception of two additional satellites displayed on the Satellite Status screen, it will be transparent to you. There is nothing you need do, it's all ready to go.

How accurate will my GPS receiver be with WAAS? The FAA reports that expected accuracy can be improved to around 7 meters vertically and horizontally. Our own testing suggests that Magellan GPS receivers will typically experience accuracy improvements to around 3 meters. You can expect to see this level of accuracy for 95% of the time that you are receiving WAAS signals.

What are some of the problems with WAAS? The signal coverage with WAAS is not global like GPS satellites. In some locations, receiving WAAS signals can be difficult and intermittent. There are two satellites transmitting WAAS for corrections in the Americas and two more over Africa and India providing similar coverage for Europe. These satellites are geostationary, i.e., they stay in the same spot over the Earth equator. The two satellites for the Americas are over the Pacific and Atlantic Oceans. Chances are then, they will probably be near the horizon from where you are using your GPS receiver. This increases the chance that buildings, foliage, terrain and other obstacles could block the WAAS signal.

Also WAAS is a relatively new system and is still in its developmental stage. So on occasion you may experience service outages. Even during these outages, your GPS receiver will still be working, computing position fixes and helping you get to where you want to go using the GPS signals. The only difference is you will not be getting the precision that WAAS was providing. You can expect to see these outages diminish as the system matures and stabilizes.

For more information on WAAS, you can visit the FAA website's section on their WAAS system: http://gps.faa.gov/programs/WAAS/waas.htm

Glossary

Active Leg	The segment of a route currently being traveled.
Altitude	The current elevation above sea level.
BRG	Bearing. The compass direction from your position to a destination, measured to the nearest degree.
Buoy	A navigation aid (usually found in marine charts) that is floating in water. The position can vary due to the magnitude and direction of the current.
COG	Course Over Ground. The direction the receiver is moving. COG can be reported in true or magnetic north values.
Coordinates	A unique numeric or alphanumeric description of the position.
CTS	Course to Steer. The direction you should be traveling in order to return to the course while proceeding towards the destination. It is a "compromise" course bearing that projects from your current position to a point on the courseline midway between a point perpendicular to your position and the current leg destination waypoint.
Datum	Refers to the theoretical mathematical model of the earth's sea level surface. Map makers may use a different model to chart their maps, so position coordinates will differ from one datum to another. The datum for the map you are using can be found in the legend of the map. If you are unsure of which datum to use, use WGS84.
Default	The value or setting automatically chosen by the unit unless otherwise directed. Can be changed in Setup.
DST	Distance. Distance from position to destination.
ETA	Estimated Time of Arrival. The estimated time of day the leg's destination waypoint will be reached.

ETE	Estimated Time Enroute. The estimated time remaining to reach the next waypoint in a route.
HDG	Heading. The direction you are facing, defined as an angle from North.
Latitude	The angular distance north or south of the equator measured by lines encircling the earth parallel to the equator from 0˚ to 90˚.
LAT/LON	Coordinate system using latitude and longitude coordinates to define a position on the earth.
Leg (Route)	A segment of a route that has a starting (FROM) waypoint and a destination (TO) waypoint. A route may consist of 1 or more legs. A route that is from waypoint A to waypoint B to waypoint C to waypoint D has three legs with the first being from waypoint A to waypoint B.
Longitude	The angular distance east or west of the prime meridian (Greenwich Meridian) as measured by lines perpendicular to the parallels and converging at the poles from 0˚ to 180˚.
Magnetic North	The direction relative to a magnetic compass.
NMEA	National Marine Electronics Association. A professional organization that defines and maintains the standard serial format used by marine electronic navigation equipment and computer interfaces.
OSGB	A coordinate system describing only Great Britain, similar to UTMs. Used with GRB36 datum.
Position fix	Position coordinates as computed by the SporTrak.
SOG	Speed Over Ground. The speed at which the receiver is moving.
TMP	Temperature.

True North	The direction to North Pole from an observer's position. The north direction on any geographical meridian.
UTC	Universal Time Coordinated. Formerly referred to as Greenwich Mean Time (GMT).
UTM	Universal Transverse Mercator metric grid system used on most large and intermediate scale land topographic charts and maps.
VMG	Velocity Made Good. The component of the velocity that is in the direction of the destination.
WPT	Waypoint. A location saved in the receiver's memory which is obtained by entering data, editing data, calculating data or saving a current position. Used to create routes.
XTE	Cross Track Error. The perpendicular distance between the present position and the courseline. Given as a distance, right or left, of course when facing the destination.